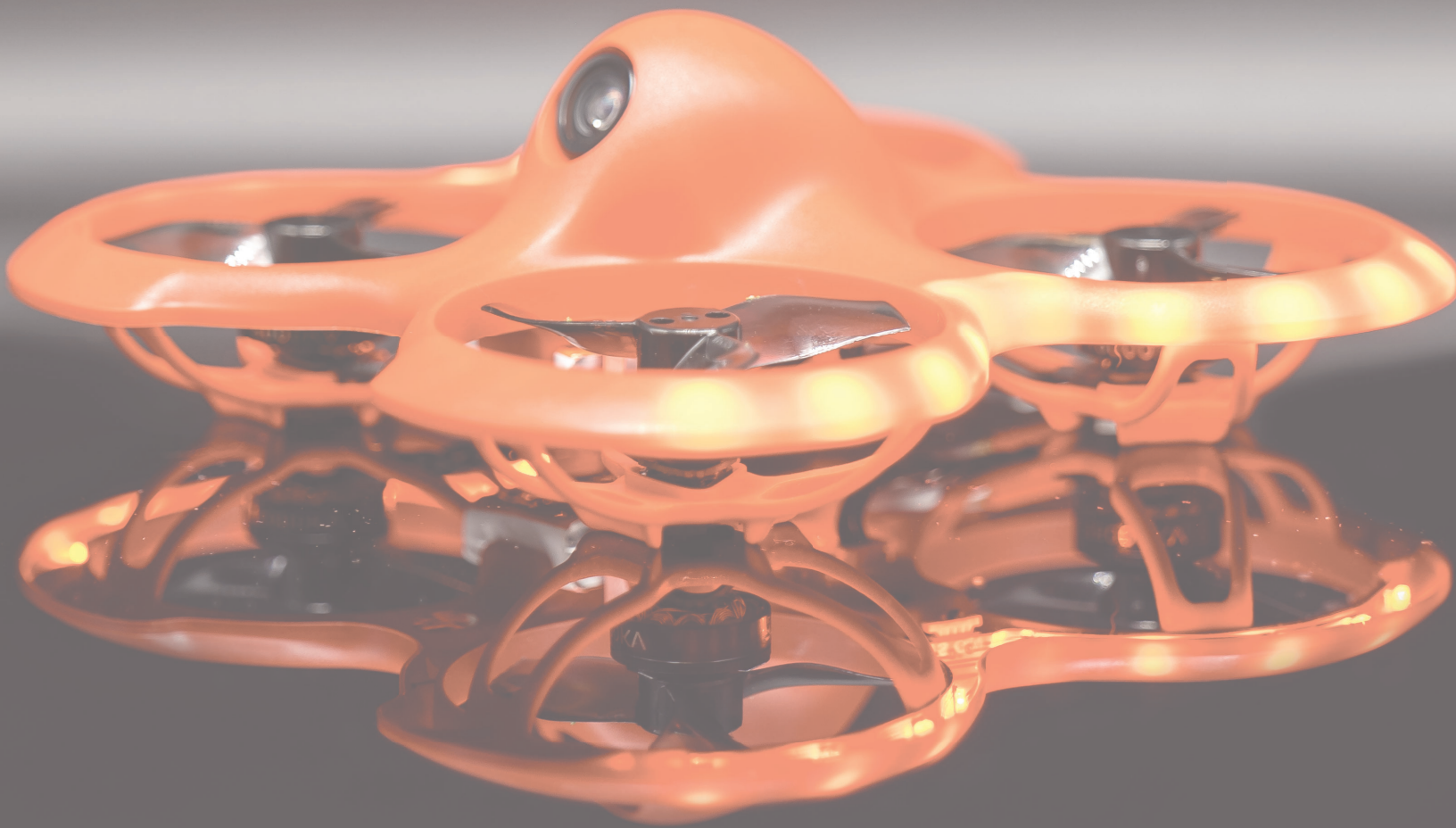




COACH'S GUIDE FOR ROCKET DRONE RACING



WELCOME ROCKET DRONES

Welcome to Rocket Drones, a visionary company with over 50 years of combined drone experience led by Chris Tonn, Chantry Holdman, Brandon Turk and Chris Pigott. Rocket Drones is dedicated to providing hands-on drone education that equips students with real-world applications and skills, preparing them for diverse careers in the drone industry. Our comprehensive FPV race program covers everything needed to get an indoor FPV drone racing team up and flying. Join us in shaping the future of drone technology and education!



General contact:

-  **Rocket Drones**
-  support@rocketdrones.com

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1. OVERVIEW

Welcome to Rocket Drones and the exciting world of First Person View (FPV) drone racing. Whether you're an experienced FPV pilot or a beginner exploring this thrilling sport, you're about to embark on a captivating journey you can share with your students. FPV racing combines cutting-edge technology, precision piloting, and high-speed excitement, offering both you and your students a unique educational experience. As a coach, you play a vital role in introducing young minds to this rapidly growing sport.

Drone racing is like nothing you've ever seen before. It combines cutting-edge technology, precision piloting, and high-speed excitement to create a unique and educational journey for both you and your students. As a coach, you'll play a crucial role in introducing young minds to this rapidly growing sport.

In FPV drone racing, participants pilot small, agile drones using goggles that provide a live video feed from the drone's perspective, making it feel as though you're sitting in the pilot's seat. This immersive experience not only fuels adrenaline but also offers a multitude of educational benefits, from improving hand-eye coordination to teaching STEM (Science, Technology, Engineering, and Mathematics) concepts like physics, electronics, and aerodynamics.

If your school focus is less on competition, our kit can be used without participation in our race leaderboards and race competitions. See our club option below for more information.

Throughout this coaching guide, we'll equip you with the knowledge and tools needed to introduce and guide your students in the world of FPV drone racing. Together, we'll explore drone technology, safety protocols, training techniques, and the exciting challenges that await your team as they navigate through our custom-built racing courses.

So, whether you're a seasoned educator or new to the world of drones, get ready to inspire the next generation of tech-savvy innovators, problem solvers, and fearless pilots. Let's embark on this educational adventure and watch our students' skills and enthusiasm soar to new heights as they take flight in the world of FPV drone racing!



1.1. Who Can Be a Rocket Drones Coach?

At Rocket Drones, we believe in inclusivity and welcome educators from diverse backgrounds to become FPV drone racing coaches. You don't need to be a seasoned pilot to inspire and guide the next generation of drone racers. Here's who can step into the role of a Rocket Drones FPV Coach:

Educators : If you're a teacher, instructor, or educator at any level, you have the skills to create a dynamic learning environment for your students. Whether you specialize in STEM subjects or not, you can leverage your teaching expertise to introduce drone racing as an engaging educational experience.

STEM Enthusiasts : Are you passionate about science, technology, engineering, or mathematics (STEM)? Your enthusiasm for these fields can be a powerful motivator for students to explore the technical aspects of FPV drone racing. Even if you're not a formal educator, your knowledge and passion are valuable assets.

Parents and Guardians : As a parent or guardian, you have a unique connection with your child's learning journey. Becoming an FPV coach can be an excellent way to bond with your child, share a hobby, and inspire their interest in technology and innovation.

Community Leaders : Community leaders, youth group organizers, or after-school program coordinators can incorporate FPV drone racing as a fun and educational activity. You can guide young participants in learning teamwork, problem-solving, and technical skills while having a blast.

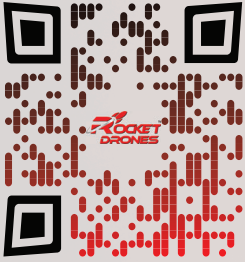
Technology Enthusiasts : If you have a keen interest in technology, even without formal teaching experience, you can become a mentor in the world of FPV drone racing. Your expertise and hands-on experience can be invaluable in guiding students.

Anyone with a Willingness to Learn : Don't worry if you're new to the world of drones. Our comprehensive training program is designed to equip you with the necessary knowledge and skills. Your willingness to learn and enthusiasm for FPV racing can make you an excellent coach.



1.2. Coach Responsibilities

Team Dashboard Management :



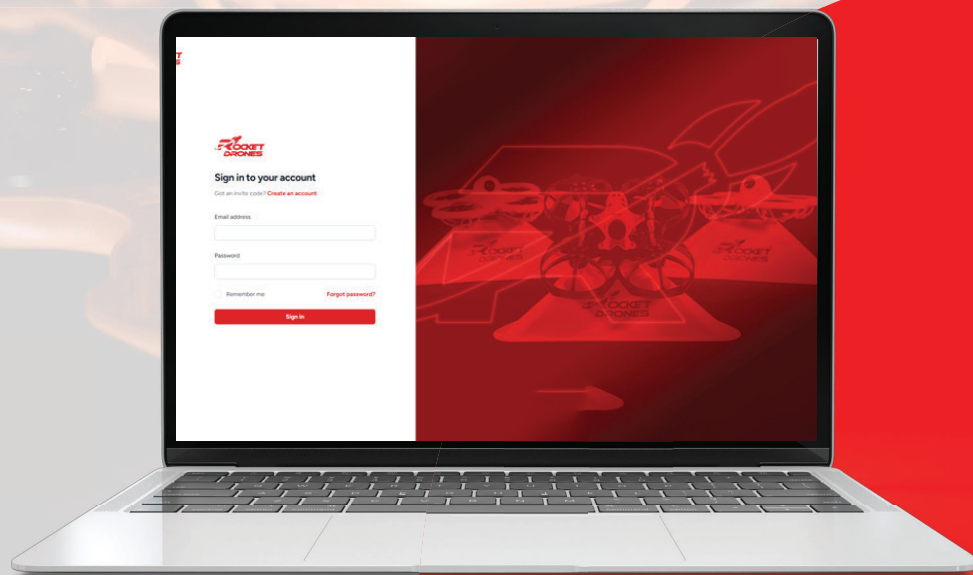
Software Guides

- Maintain the team's digital team portal, including updating schedules, posting important announcements, and ensuring that all team members have access to the necessary resources.
- The Rocket Drones Portal houses all relevant information, such as race dates, training sessions, and race details along with waiver completion and curriculum progress.

The adjacent QR code will bring you to our playlist of guides for our dashboard and online material.

Inviting Students and Parents to Join the Team Portal :

- Actively engage with students and parents to encourage participation in the team portal. Our team dashboard is designed to allow coaches to invite and manage their own teams. The invites will generate emails with all the necessary information the parent/student will need to complete registration, sign waivers and complete learning activities.
- If you have not already registered for Rocket Drones Portal access, please reach out to your school's purchasing department. That department received an email with all of the instructions for school administrators and coaches.

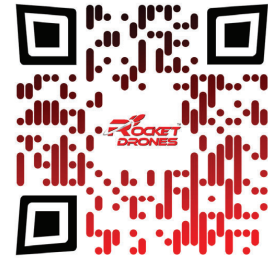


Plan and Supervise Races :

- Plan, coordinate, and oversee practice races and competitions, ensuring that they run smoothly and safely.
- Ensure all rules and regulations are followed by all team members.
- Assign and evaluate roles within the team and provide feedback on students' performance to help them improve.

Assist with Drone Support :

- Collaborate with students to address any technical issues they encounter during practice or races.
- Promote safe drone operation and adherence to equipment maintenance practices.
- Our comprehensive guides are located online at the adjacent QR code.

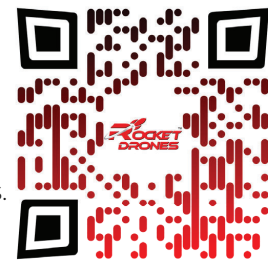


Quick Start Guide

These guides offer technical support for drone assembly, maintenance, and troubleshooting.

Team Building :

- Foster a sense of unity and camaraderie among team members through team-building activities and group instruction.
- Encourage teamwork, sportsmanship, and mutual support among students.
- Create an inclusive and welcoming team environment where all members feel valued and included.



Manual





Training and Skill Development :

- Provide structured training sessions to help students improve their flying skills, including piloting techniques, obstacle navigation, and racing strategies.
- As the student progresses, and their skill develops, they can use higher rates and control settings to suit the skill levels and needs of individual students.

Parent Communication :

- Maintain open and transparent communication with parents, updating them on team activities, schedules, and achievements. This can all be achieved on the Rocket Drones Dashboard.
- Address any concerns or questions parents may have regarding their child's participation in FPV drone racing.

Safety and Regulations :

- Ensure that all team members are aware of safety protocols and adhere to local regulations regarding drone operation.
- Always promote responsible and safe flying practices.

Mentorship and Support :

- Offer guidance and mentorship to students, helping them set and achieve their personal goals in FPV drone racing. Our support team is here to assist you in this endeavor.
- Provide emotional support and encouragement to students during both successes and challenges.

2. GETTING STARTED WITH ROCKET DRONES

Our Introduction to FPV Racing course is designed to equip both students and faculty with the knowledge and skills needed to excel in the world of drone racing. This program is voluntary for coaches but highly recommended for those looking to become certified FPV drone racing coaches.

Step 1:

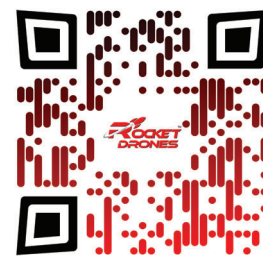
Reach out to your school's Purchasing Department. They received an email with information on how to access our Rocket Drones Learning Dashboard, Race Management Dashboard, Guides and Videos.

Step 2:

Complete the Introduction to FPV Drone Racing at your own pace, covering essential topics related to FPV drone racing, coaching techniques, safety guidelines, and more.

Step 3:

Obtain Your Coach Certificate-Upon successful completion of the course, you may complete the adjacent quiz. Upon passing, you will receive a FPV Coach Certificate, recognizing your expertise in FPV Drone Racing coaching. This certificate serves as a testament to your commitment to the sport and your ability to guide students effectively.



Coach Certification



Step 4:

Explore our Unboxing Videos-As part of your training, we recommend watching our unboxing videos, which can be found in one of the below QR codes that corresponds to your school's kit. These videos provide valuable insights into unboxing your shipment, equipment setup, and maintenance.



Stage 1



Stage 2



Stage 3



Classroom Drone Kit

Step 5:

Need Support? Contact Us

Should you require any assistance or have questions at any stage of your FPV coaching journey, please don't hesitate to reach out to us at support@rocketdrones.com. Our team is here to support you every step of the way.

We're excited to have you on board as a Rocket Drones FPV Coach, and we look forward to witnessing the impact you'll make in introducing and nurturing the passion for drone racing in your students. Enjoy the training, and let's soar to new heights together.



2.1. What's Needed?

To successfully establish a drone racing program at your school, you'll need the following:

Indoor Space :

Our mini inflatable gates and simulator are ideal for schools with limited access to large open indoor areas. To utilize our full race kit with a safe seating area for both pilots and spectators, a large open indoor area is preferred for setting up the race track and ensuring safe racing. Keep in mind that gate height for two of the gates are higher than 10 feet. The suitability of the gym can be categorized based on size and dimensions:

Middle School (Approximately 74' x 42') :

Typically accommodates a compact race track layout. Spectator and team seating may be an issue. Ideal for mini inflatable race gates or a full course if seating offers safety for both pilots and spectators.

High School (Approximately 84' x 50') :

Offers more space for diverse track designs and allows for safer seating.

NBA/NCAA (Approximately 94' x 50') :

Provides ample room for elaborate and challenging racecourses and offers more room for live announcers and live streaming.

WiFi Access :

Reliable WiFi is necessary for accessing the race management dashboard and utilizing the timing system effectively.

Power Outlet :

A power outlet is required not only for gate inflation but also for charging batteries and electronic devices used for drone racing.

Designated Storage Area :

Establish a secure and organized storage area for storing batteries and equipment when not in use. Proper storage ensures that everything is readily available and in good condition for each practice and race.

Eager Group of Students :

Assemble a group of enthusiastic students who are eager to take on the challenges of FPV drone racing. Their dedication and teamwork are essential for the success of your drone racing team.





2.2. What Makes a Race Team?

An FPV drone racing team is a dynamic group united by a shared passion for high-speed, immersive drone racing. This thrilling sport combines cutting-edge technology, precision piloting, and competitive racing. Here's what defines an FPV drone racing team:

2.2.1. Roles:

Race Manager & Safety Officer :

This individual oversees all aspects of race management and ensures the safety of team members and spectators during races and practice sessions. These roles can be separated into two if you have the available team members.

Responsibilities :

- Set up and manage race courses, including gates, obstacles, and timing systems.
- Enforce safety protocols, including spectator boundaries, pilot safety gear, and emergency response procedures.
- Coordinate race schedules and communicate them to team members and participants.
- Address safety concerns and make necessary adjustments to race conditions.
- Act as the primary point of contact for race-related inquiries.

FPV Racer :

FPV racers are the pilots who operate the racing drones during practice sessions and competitions.

Responsibilities :

- Master the art of flying FPV drones, including precise control, obstacle navigation, and racing maneuvers.
- Participate in practice races and competitions to represent the team.
- Collaborate with the Flight Engineer for drone maintenance and repairs.
- Follow race strategies and adapt to changing race conditions.

Visual Observer :

Visual observers play a crucial role in assisting FPV racers by providing real-time visual information about the drones' positions and obstacles.

Responsibilities :

- For FPV racers: VO can watch the live video feed from the racer's channels and verify the drones successfully pass through each gate.
- For Line-of-Sight (LOS) racers: VO can maintain visual contact with the drones, ensuring they successfully pass through each gate.
- Communicate effectively with the racers to enhance their situational awareness if needed.

Flight Engineer :

The Flight Engineer is responsible for drone maintenance, inspections, and battery management to ensure that all equipment is in optimal condition.

Responsibilities :

- Perform pre-flight and post-flight inspections to check for any issues or damage to the drones.
- Manage and maintain drone batteries, ensuring they are charged, balanced, and ready for flights.
- Assist with repairs and troubleshooting as needed.
- Keep inventory of spare parts and order replacements when necessary.

Announcer (Optional) :

The announcer provides commentary and race updates during competitions, adding excitement and engagement for the audience.

Responsibilities :

- Commentate on race progress, providing details on racers, lap times, and exciting moments.
- Engage the audience by explaining the rules and strategies involved in FPV drone racing.
- Keep the audience informed and entertained throughout the event.

Live Streamer (Optional with the purchase of the 4 way HDMI Drone Video Receiver) :

The live streamer is responsible for capturing and broadcasting the races online to a wider audience.

Responsibilities :

- Set up cameras and equipment to capture high-quality video of the races.
- Ensure a stable and engaging live stream, including commentary and graphics.
- Share the live stream on social media and other online platforms to reach a broader audience.
- Interact with viewers, answer questions, and provide race updates during the broadcast.

Each team member's role and responsibilities contribute to the success and safety of the FPV drone racing team. Clear definitions and effective communication within the team will help ensure that everyone understands their roles and can work together seamlessly.

2.3. What's Included in the Kit?

- 6 Stage 1 Rocket Drone racing drones
- 6 FPV goggles with onboard DVR
- 12 micro SD cards for DVR
- 6 FRSKY drone controllers: Launch Controllers
- 60 rechargeable drone batteries
- 6 drone battery chargers with the ability to charge 6 batteries at once
- 6 drone racing chairs
- 1 Windows gaming laptop with drone simulator and race timer software
- Student, teacher, and parent web portal access
- 1 electronic race gate timing system with an interactive app
- Gym-sized inflatable racecourse with 5 unique race gates
- Classroom-sized inflatable racecourse with 5 unique race gates
- 2 air pumps for inflating and deflating the racecourse
- 30 racecourse pathway cones
- 6 carrying cases
- 12 lanyards
- League management portal
- Annual league fee for up to 12 racers
- One-time simulator license for up to 12 racers
- 25 safety goggles for the team and audience
- 12 team jerseys (Provided once sizes are submitted via Portal)
- Extensive video library for support walkthroughs + coaches guide
- Toolkit and spare parts including extra propellers, screws, motors, and adhesive patches for the inflatable racecourse
- Safety Signage

Attention: Controllers are pre bound and must only go through the binding procedure one at a time.



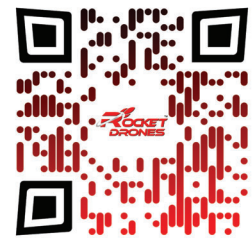
3. SIMULATOR SETUP

Our drone racing simulator provides a risk-free environment for students to hone their flying skills before taking to the skies. We recommend conducting tryouts and allowing students to practice on the simulator before real flights. The simulator is pre-installed on the laptop and only requires a straightforward digital key setup. If you encounter any issues with the simulator, please don't hesitate to contact us at support@rocketdrones.com.

4. COACH PRACTICE

4.1. Manuals

We've assembled a set of manuals and guides to support your FPV drone racing program. These resources cover basic drone functions, controller operations, and goggle control, providing essential knowledge for students at all levels. You can conveniently access these references through the QR code, equipping yourself with the tools to lead your team to success in the world of drone racing.



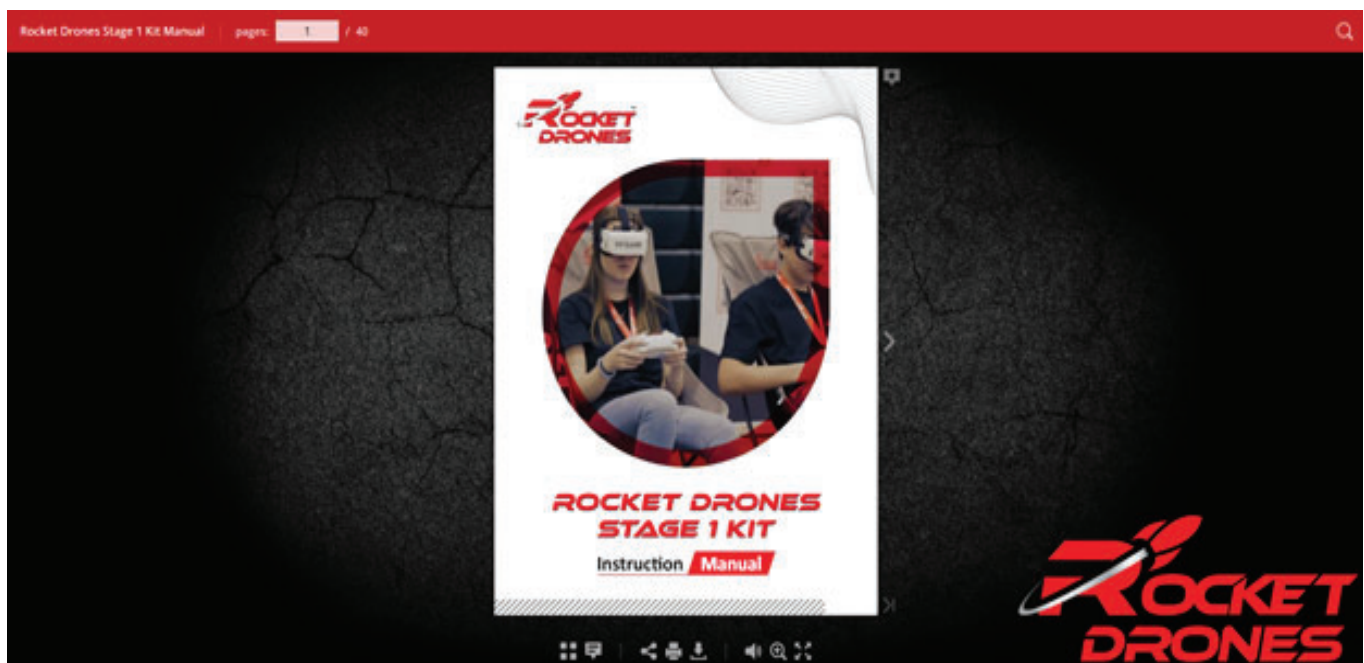
Manuals

4.2. Basic Drone Safety

Our First Flight video is linked in the adjacent QR code. Please ensure to watch the video prior to operating the drone. This video will teach you all the basics you need to know to get you started.



Drone Safety



PRE RACE CHECKLIST

Task	Owner
Course Set Up <ul style="list-style-type: none"> • Safety Signage • Inflatables • Timing System • Launch Table • Pilot and Spectator Seating 	Everyone <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Preflight Inspections <ul style="list-style-type: none"> • Inspect drone for any damage • Propeller direction • Debris or hair in the motors • Battery voltage • FPV channels • Hover Test 	Flight Engineer <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Safety Brief / O.R.M. <ul style="list-style-type: none"> • Eye protection is required • Long hair or other loose objects should be secured to prevent entanglement with drone motors • Course to remain clear during flight • Batteries • Rogue Drone-Arm/Disarm • Review and ensure team knows the locations of fire and medical emergency supplies 	Safety Officer <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Course Walk through <ul style="list-style-type: none"> • Ensure all pilots are aware of flight paths for each gate and that they are properly inflated • Verify spectator and pilot area for safety • Verify designated landing zone 	Race Manager <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Flight <ul style="list-style-type: none"> • Ensure course remains clear of personnel during flight • Verify the assigned FPV pilot passes through each gate • Identify rogue drones 	Visual Observer <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Post Flight Inspections <ul style="list-style-type: none"> • Charge batteries • Drone Inspection for flight worthiness 	Flight Engineer <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/>
Disassembly and Storage <ul style="list-style-type: none"> • Use pumps to remove excess air to ensure inflatables store properly 	Everyone <ul style="list-style-type: none"> <input type="checkbox"/>
In case of emergencies, dial 911 for immediate assistance or _____ for local support. Contact Race Coach or Race Manager for all problems/concerns.	

5. INTRODUCING YOUR SCHOOL TO ROCKET DRONES!

Steps to become an FPV Racing Pilot:

We recommend each student first complete our Rocket Drone's simulator academy "Basic Drone Control" before attempting hands-on drone flying. Each of these lessons align with our Rocket Drone's Racing Activities that are designed to teach basic flight control.

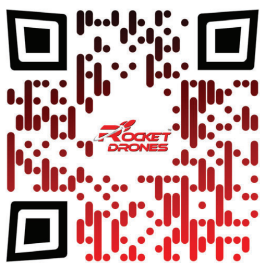
Rocket Drone Racing Activities are designed to get students up and flying. Activities can be completed in groups of 1-6. Activities should be completed in order.

- Altitude Control
- Box Flights
- 360 Degree Rotation
- Speed Control
- Slalom
- Infinite Loops

Have each student complete each activity, using the completion checklist to track each student's progression. Students should be grouped together based on simulator ability. Each activity checklist tracks simulator, normal, sport and manual modes for both line of sight and FPV.

Students who excel in the simulator or have previous FPV experience can assist other students through these activities. Utilize other team members who are not piloting to practice other team roles. Visual observers can assist in tracking pilot progression. Flight Engineers can inspect drones as they complete activities.

5.1 Everyone's First Practice



First Flight Playlist

To ensure your FPV racing events run smoothly and safely, we've prepared a detailed video tutorial that covers a range of critical aspects. Simply scan the adjacent QR code with your mobile device to access this comprehensive guide. In this video, coaches will see a complete course setup with our timing system, a crucial step for accurate race timing. Discover the importance of a safety walk and talk with a course inspection to ensure a secure racing environment. Furthermore, gain insights into flight basics, including both Line of Sight (LOS) and First Person View (FPV) flying techniques. This tutorial is a valuable resource for coaches aiming to create an enjoyable and well-organized FPV racing experience for their teams. For any questions or additional support, our dedicated team is here to assist you in your FPV journey.

ROCKET DRONES RACE ACTIVITIES

Altitude Control

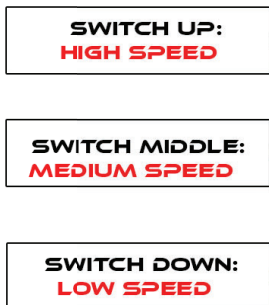


Activity Video

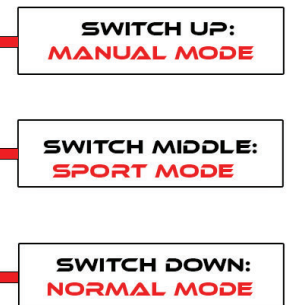
Activity Time	5 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Adjust throttle to control altitude with and without sensors. Students should be able to maintain steady altitude control to complete this activity.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to eye level at a safe distance. 4. Utilize the throttle joystick to maintain elevation and hover in place for 5 seconds. 5. Use fine movements to adjust thrust. Land and repeat 5 times. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist.

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE ACTIVITIES

Altitude Control

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post flight Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

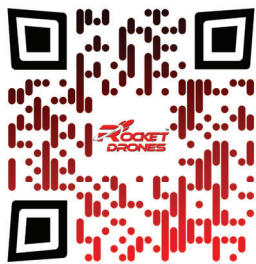
- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

Power Up Mode: FPV Experience

Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

ROCKET DRONES RACE ACTIVITIES

Box Flight

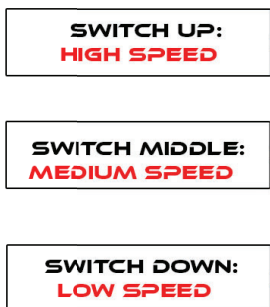


Activity Video

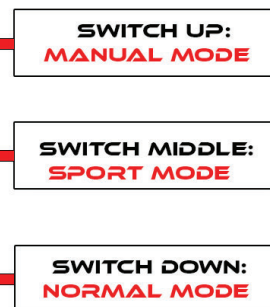
Activity Time	10 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Maintain altitude control while flying in a box shape with and without sensors. Students should be able to maintain steady altitude control and complete a box shape to complete this activity.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to waist level at a safe distance. 4. Utilize both joysticks to fly forward, then left, then back, then right to end up at the landing pad 5. Adjust drone orientation as needed. Land and repeat 5 times. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE ACTIVITIES

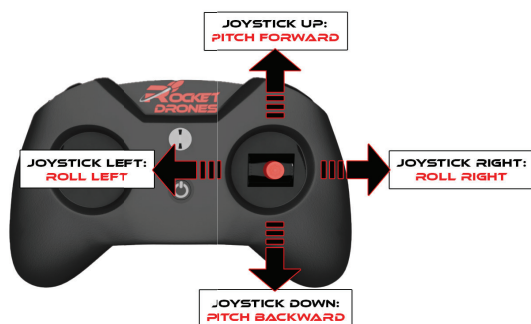
Box Flight

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post flight Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

Power Up Mode: FPV Experience

Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

ROCKET DRONES RACE ACTIVITIES

360° Yaw Rotation

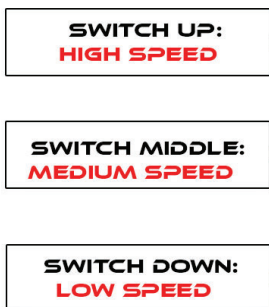


Activity Video

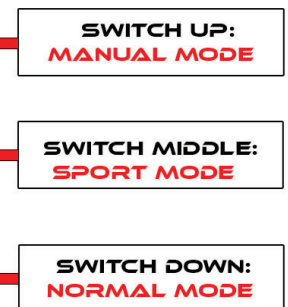
Activity Time	5 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Control the orientation of the drone using yaw rotation with and without sensors. Students should be able to maintain steady altitude control and rotate the drone to complete this activity.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to eye level at a safe distance. 4. Utilize the throttle joystick to spin the drone around and adjust orientation. Maintain a constant altitude. Spin in each direction. 5. Land and repeat 5 times. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist.

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE ACTIVITIES

360° Yaw Rotation

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post flight Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

Power Up Mode: FPV Experience

Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

ROCKET DRONES RACE ACTIVITIES

Speed Control

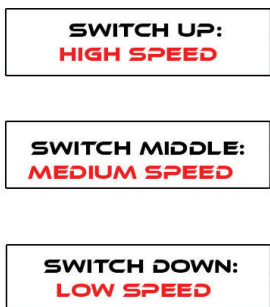


Activity Video

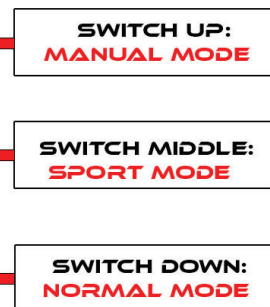
Activity Time	5 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Adjust throttle to control altitude while pitching the drone forward with and without sensors. Students should be able to maintain steady altitude control and forward progression to complete this activity.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to eye level at a safe distance. 4. Utilize the pitch joystick to tilt the drone forward. Maintain elevation by increasing throttle as the drone moves forward. 5. Pitch the drone back to return, land and repeat 5 times. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist.

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE

ACTIVITIES

Speed Control

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post light Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

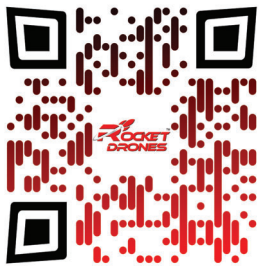
Power Up Mode: FPV Experience

Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

ROCKET DRONES RACE

ACTIVITIES

Slalom

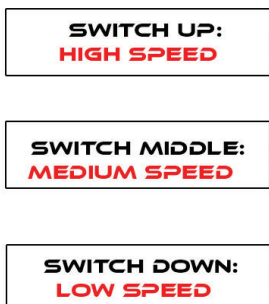


Activity Video

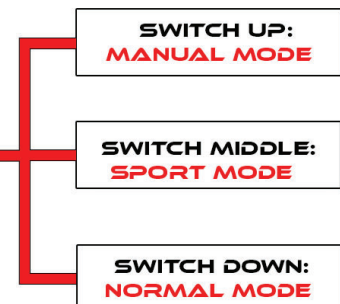
Activity Time	10 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Navigate the drone around cones placed in a line with and without sensors. Students should be able to maintain elevation while navigating the cones to complete this activity. Cones should be placed 3-5 feet apart.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to waist level at a safe distance. 4. Utilize both joysticks to maintain elevation, forward flight and the roll joystick. Weave down the line of cones. 5. Return to the landing area, land and repeat 5 times. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist.

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE ACTIVITIES

Slalom

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post flight Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

Power Up Mode: FPV Experience

Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

ROCKET DRONES RACE ACTIVITIES

Infinite Loops

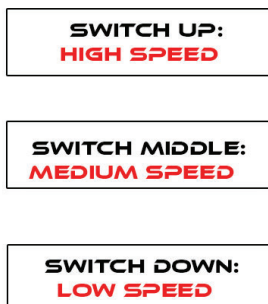


Activity Video

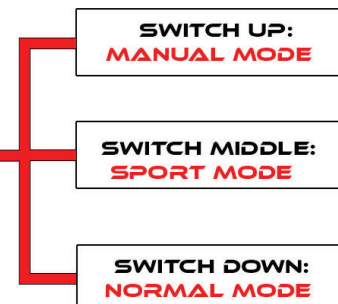
Activity Time	10 mins per group
Student Groups of	1-6
Prerequisites	Simulator • Basic Drone Control
Supplies	Drone, Controller, Batteries and FPV Goggles
Designated Flight Area	Clear area free of obstructions

Educational Goals	Learn basic controller functions and flight characteristics of the drone. Maintain elevation while making loops around two cones with and without sensors. Students should be able to maintain steady altitude control and complete a full rotation to complete this activity. Cones should be 3-5 feet apart.
Instructions	<ol style="list-style-type: none"> 1. Perform Preflight Checklist 2. Place the drone into Normal Mode using Switch A. Students should begin in Low Speed Mode using Switch C. As students progress they may adjust the Speed Rate Switch. (Do not change modes while drone is flying) 3. Ensure the throttle is in the down position on startup then bring your drone up to waist level at a safe distance. 4. Utilize both joysticks to maintain elevation and fly around a set of cones. Stay close to the cones and focus on control. 5. Attempt 5 times then land. 6. Change to Sport Mode and repeat steps 3-5. 7. Complete Post Flight Checklist.

SWITCH C / SC



SWITCH A / SA



DO NOT CHANGE DURING FLIGHT!

ROCKET DRONES RACE ACTIVITIES

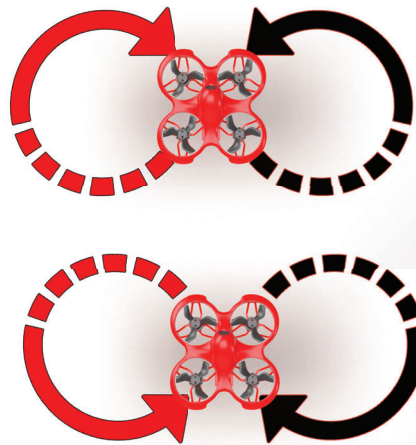
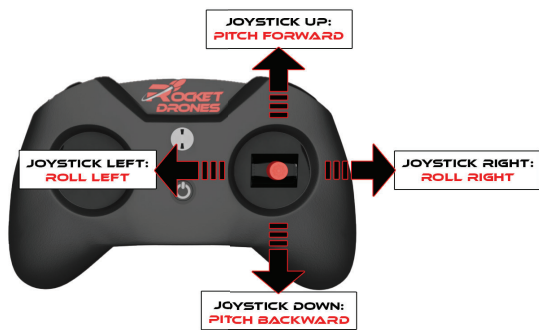
Infinite Loops

Preflight Checklist

- Designate flight area.
- Place signage and ensure area remains clear

Preflight Inspections

- | | |
|---|---|
| • Power on Transmitter <input type="checkbox"/> | • Verify connections <input type="checkbox"/> |
| • Power on Goggles <input type="checkbox"/> | • Inspect battery and verify voltage <input type="checkbox"/> |
| • Inspect drone for any damage <input type="checkbox"/> | • Power on Drone <input type="checkbox"/> |
| • Propeller direction <input type="checkbox"/> | • Verify FPV channels <input type="checkbox"/> |
| • Debris or hair in the motors <input type="checkbox"/> | • Apply Safety Gear <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Line of Sight Hover Test <input type="checkbox"/> |
| • _____ <input type="checkbox"/> | • Perform Flight <input type="checkbox"/> |
| | • _____ <input type="checkbox"/> |



Post flight Checklist

- Inspect drone for damage
- Remove batteries from all drones

Post Flight Procedures

- | | |
|--|---|
| • Battery cooldown (3 mins) <input type="checkbox"/> | • Ensure batteries are stored properly <input type="checkbox"/> |
| • Power down controller <input type="checkbox"/> | • Store controllers with each designated drone <input type="checkbox"/> |
| • Power down FPV goggles <input type="checkbox"/> | • _____ <input type="checkbox"/> |

Power Up Mode: FPV Experience

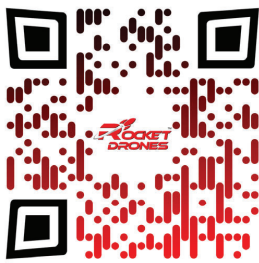
Students who have mastered this skill in Normal and Sport Mode may attempt the Power Up Mode and complete this activity with FPV Goggles. Ensure channel frequencies are set properly. Refer to Goggle Quick Reference Guides.

6. TEAM MANAGEMENT

Making a FPV racing team is simple and easy with our FPV racing simulator. Simulator tryouts are ideal for large groups of students. A team can consist of anywhere between 1-12 members, expandable to 24 and can be grouped by experience levels or by results from our simulator. Having the students show their skills on our simulator reduces the risk of damage to the drones and uses the same equipment they will use to fly with!

Once the students have a basic understanding of the flight controls and flight mechanics, you can move onto an in person team tryout if needed.

6.1. Rocket Drones Dashboard



Software Guides

To get started, simply scan the adjacent QR code with your mobile device. This video playlist will walk you through the step-by-step process of setting up your team on our dashboard, inviting team members and parents, and managing a race.

It also highlights the significance of completing waivers, a vital step to ensure safety and participation. Learn how to effortlessly add racers to your team, enabling you to build a competitive squad. Additionally, discover the process of editing race details for a tailored racing experience. If you have any questions or need further assistance, don't hesitate to reach out to our dedicated support team. We're committed to helping you create a dynamic and successful FPV racing program.

6.2. Scheduling an Event

To schedule an event on our dashboard, simply log into the Rocket Drones Portal and complete the required information such as race name, date, and time. Explore the options for specifying the race type, gym size, and whether it's a team race or simulator-based event. The Rocket Drones Portal streamlines your race scheduling process, providing an exceptional experience for your team.





6.3 Make it Through the Gates!

As a coach, you play a pivotal role in nurturing the skills and enthusiasm of your FPV racing team. Encourage your students to conquer the challenge of flying through the race gates with precision and confidence. The gate serves as a significant milestone in their journey and mastering it can boost their self-assurance and racing capabilities. Emphasize the importance of consistent practice and offer guidance to help them improve their gate navigation skills. By focusing on this fundamental aspect of FPV drone racing, your students can elevate their performance and achieve greater success in this exhilarating sport.



7. RACE INFORMATION

7.1. Race Formats

Time Trials

Race Type	Fastest 3 Consecutive Laps.
Practice Rounds	Optional and unlimited practice rounds (at Team Coach's discretion).
Competition Heats	Minimum of 5 and Maximum of 10 heats.
Race Parameters	Fastest 3 consecutive laps.
Race Duration	Fixed time-2 minutes (Last lap after the timer sounds counts if the pilot successfully completes the lap).
Timing System	Must use a Rocket Drones timing system.
Software	Must use Rocket Drones timing software.
Race Start	Race starts on the tone with green indicator.
Leaderboards	All times must be submitted and added to Rocket Drones Leaderboards ranking system.

Inter-School Season Competition

Race Type	Best 3 out of 5 rounds.
Practice Rounds	Optional and unlimited practice rounds (at Team Coach's discretion).
Heat Grouping	Pilots will be grouped into 4 pilots, and each heat will run 5 rounds.
Scoring	Pilots receive 1 point for each successful lap within a 2-minute heat. 1 bonus point is available for landing on your designated table landing spot.
Placement	Best 3 out of 5 rounds are tallied to determine placement.
Run-Offs	In the event of a tie, runoff pilots will run a tie-breaker race to 3 laps to determine placement on the leaderboard.
Race Duration	Fixed time-2 minutes.
Timing System	Must use a Rocket Drones timing system.
Software	Must use Rocket Drones timing software.
Race Start	Race starts on the tone and green indicator.
Leaderboards	All times must be submitted and added to Rocket Drones Leaderboards ranking system.

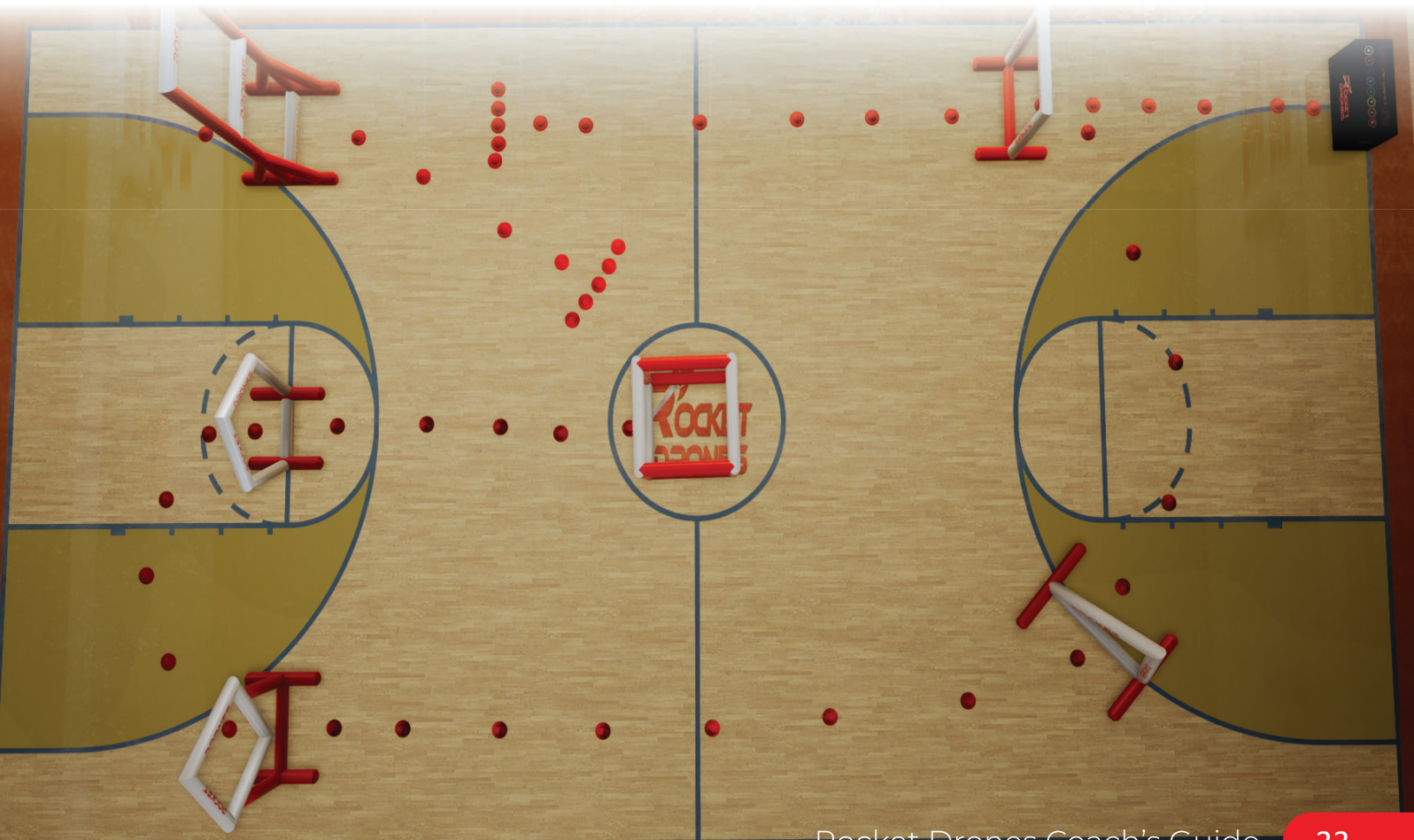
School vs. School Scrimmages

Team Composition	2 members from each team per heat.
Race Heats	2-minute race heats.
Scoring	1 point is awarded for each lap completed. 1 bonus point is available for landing on your designated table landing spot.
Winner	The team with the most points wins the race.

Simulator Race

Race Type	Handled inside the simulator.
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These different race formats offer diverse experiences for your drone racing program, from time trials to inter-school competitions and friendly scrimmages. Choose the format that best suits your goals and enjoy the excitement of drone racing.



7.2. Track Design

Design in Simulator : Start your track design process in a simulator to visualize and test the layout before physical implementation.

Safety Officer Involvement : Involve a Safety Officer in the design process to utilize risk management principles. They can ensure that the course design aligns with safety requirements and offer guidance on pilot and spectator seating as well as the launch table setup.

Gym Size Compatibility : Ensure that the track design is well-suited to the specific dimensions of your gym. Match the course layout to your available space for safe and effective races.

Adequate Clearances : Allow for sufficient clearances between racecourse elements and spectator seating to prevent interference and maintain safety.

Emergency Procedures : Include clear and well-communicated emergency procedures in your track design to address any unexpected situations, such as equipment malfunctions or pilot issues.

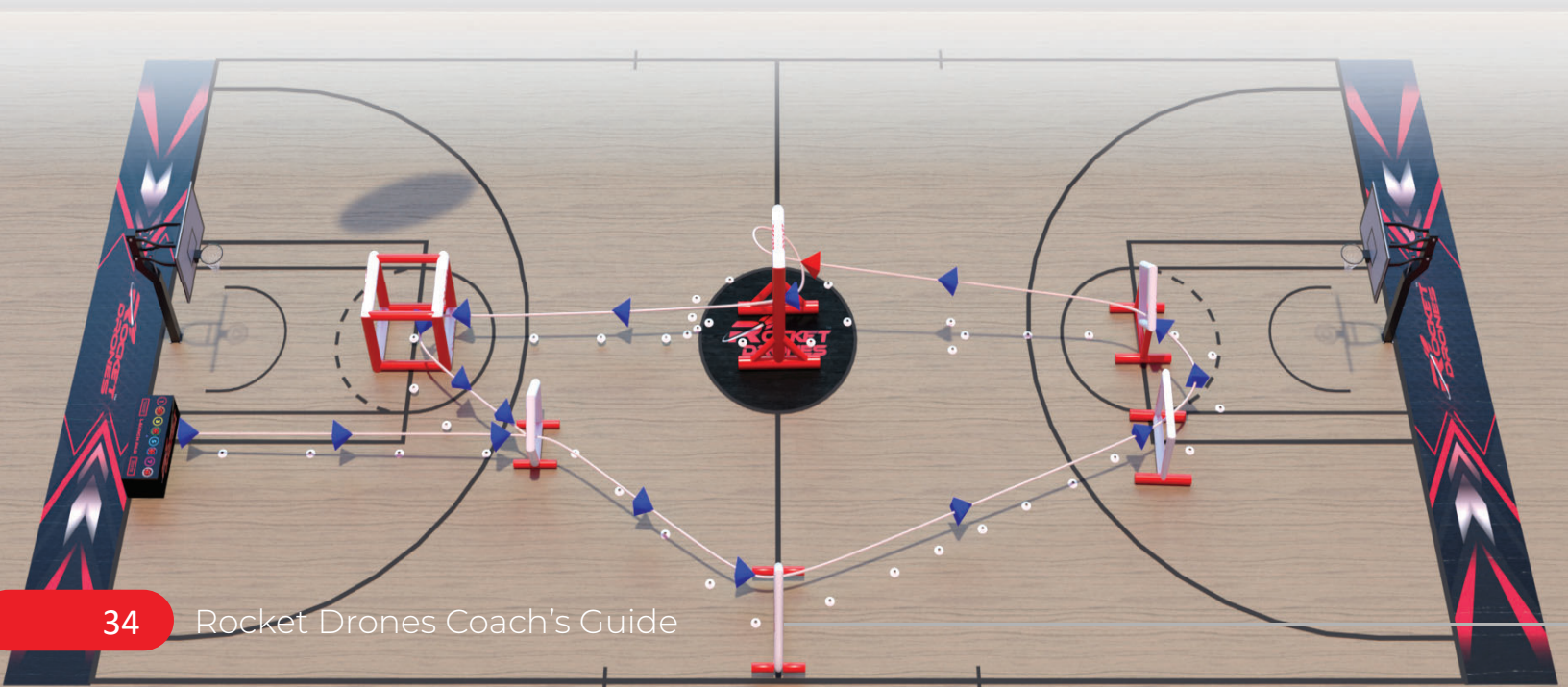
Consideration of Obstacles : Consider any existing obstacles within the gym, such as pillars or structures, when designing the track layout to ensure safe and obstacle-free racing.

Adaptability : Design the track with flexibility in mind so that you can adjust or modifications if needed, depending on the number of participants and skill levels.

Visibility and Spectator Experience : Strive for an engaging and visible track design that allows spectators to enjoy the racing action and experience the excitement of FPV drone racing.

Course Markings : Clearly mark the track elements, gates, and obstacles to enhance the pilot's awareness of the course and enable smoother navigation.

Testing and Iteration : Test the designed track in real-life conditions and be prepared to adjust and iterate for optimal performance and safety



7.3. Race Strategies

Turtle Mode : Sometimes called "Flip over after crash" is a valuable feature for drone racing. When a pilot crashes and ends up upside down, engaging Turtle Mode can flip the drone back over, allowing the pilot to continue racing without the need for manual recovery. Knowing when to use Turtle Mode effectively can save valuable seconds in a race.

Pre-Turning : Pre-turning involves anticipating the next element of the racecourse and initiating a turn slightly ahead of time. This strategy minimizes the need for abrupt, last-minute maneuvers and helps maintain a smoother and more efficient racing line. Pre-turning is essential for precision and speed.

Gate Entry and Exit : Gate entry and exit points are critical aspects of drone racing. Pilots must approach gates at the right angle and speed to ensure a smooth passage through them. A well-executed entry and exit from each gate is crucial for maintaining momentum and avoiding penalties.

Inertia : Inertia refers to the conservation of kinetic energy during racing. Effective pilots focus on minimizing unnecessary braking or changes in direction to maintain speed. Conserving energy throughout the race can lead to improved lap times.

Throttle Management : Throttle management is all about controlling the drone's speed and altitude. Skilled pilots adjust their throttle input to maintain a balance between speed, precision, and altitude. Proper throttle management ensures that the drone responds predictably to pilot commands.

Maneuvers : Maneuvers encompass a range of advanced flight techniques, including rolls, flips, power loops, and split S turns, which can be used strategically during a race. These maneuvers, when executed with precision, can help pilots navigate tight sections of the course or overtake competitors. However, it's important to use them judiciously, as excessive maneuvering can lead to errors or crashes.

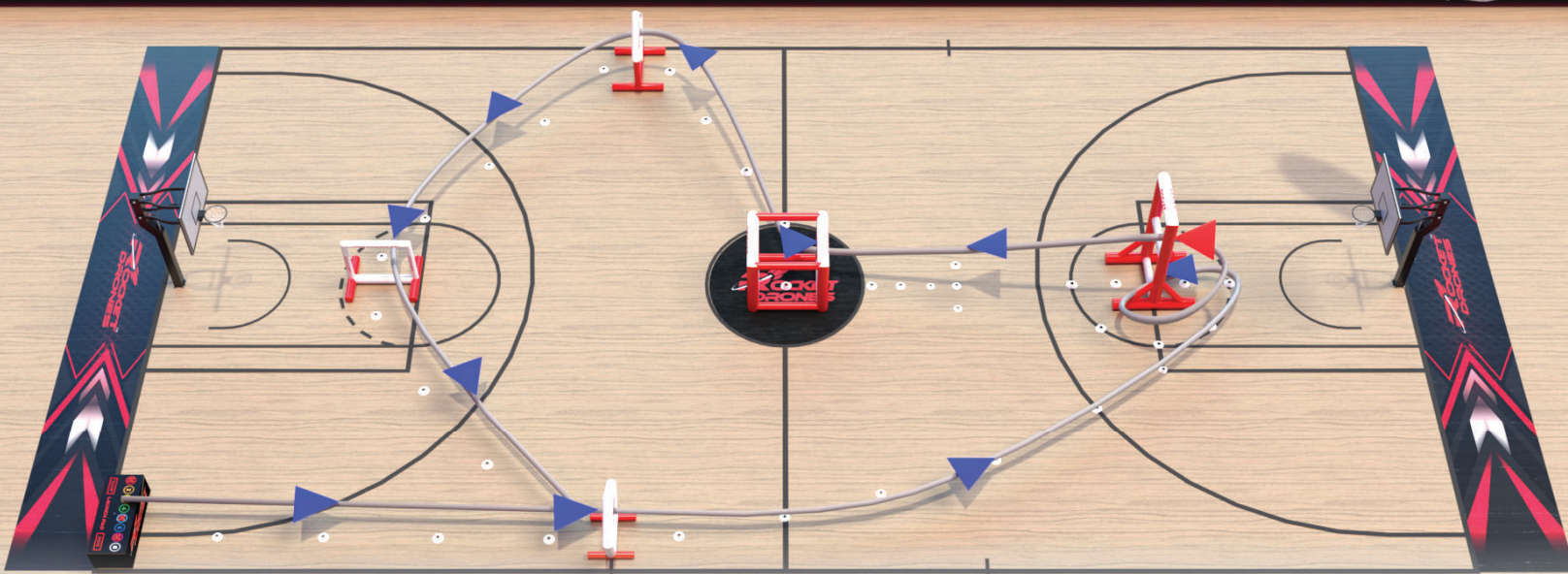
By understanding and applying these race strategies, pilots can enhance their performance, improve lap times, and gain a competitive edge in FPV drone racing. Coaches can provide valuable guidance to help their team members master these techniques and optimize their racing skills.

8. NATIONAL QUALIFIER STAGE 1 & 2 DRONES

Scheduling a Qualifier in the Dashboard : To initiate a National Qualifier, teams should access their dashboard and select either Stage 1 or Stage 2 Qualifier. This marks the beginning of a personal time trial where participants aim to record their fastest three consecutive laps. Importantly, there are unlimited attempts allowed before the specified cutoff date, allowing teams and individuals to fine-tune their racing skills.

Course Verification Check : Before the qualifier, it's essential to verify that the course layout aligns precisely with the specified configuration. This involves measuring and cross-checking the gate positions, ensuring they match the required course design. Course verification is crucial to maintain fairness and consistency among participants. Course verification is completed on the Rocket Drones Launch Portal.

Uploading DVR Footage : To complete the National Qualifier process, participants are required to upload DVR (Digital Video Recording) footage of their race runs. This footage should clearly show the three fastest consecutive laps. This verification step serves to ensure transparency and maintain the integrity of the qualifying process. Please visit www.rocketdrones.com/nationalqualifier for more information.



9. NATIONAL QUALIFIER STAGE 3

Our National Qualifier for Stage 3 Drone kit aims at developing a robust portfolio of completed projects. A certificate proves you are trained; a portfolio shows experience. Competition information is coming soon. Ensure to stay up to date at www.RocketDrones.com

10. CODE OF CONDUCT & DISPUTES

10.1. Guidelines for Everyone

Listen and Follow Instructions : Respect and follow all instructions given by the Team Coach(s), the race manager or safety officer. Their guidance is vital to ensuring a safe and organized race environment

Course Safety : Never enter the racecourse while drones are actively flying. After a race, immediately power down any retrieved drones to clear the video channel and prevent accidental motor activation.

Emergency Preparedness : Know the emergency exits and the locations of the first aid kit and fire extinguisher for quick access in case of emergencies.

10.2. Guidelines for Pilots

Designated Areas : Fly your drone only in the designated areas and during authorized times.

Maintain Distance : Keep your drone at least 25 feet away from the pilot area to avoid interference with other pilots' video reception.

Landing Protocol : After completing a race, land in the designated launch pad area on the course.

Pilot Area : While on the course, remain within the designated Pilot Area; avoid flying from other locations.

Powering Up : Only power up your drone and video transmitter while in the Launch Pad area on the course.

Frequency Check : If you need to check your video channel or change frequencies, do so between heats, not during a race.

Visual Observer : Always have a Visual Observer present in the Pilot Area while flying. The Visual Observer's role is to watch for potential dangers, such as spectators, animals, or other pilots, unless otherwise directed by the Team Coach(s)

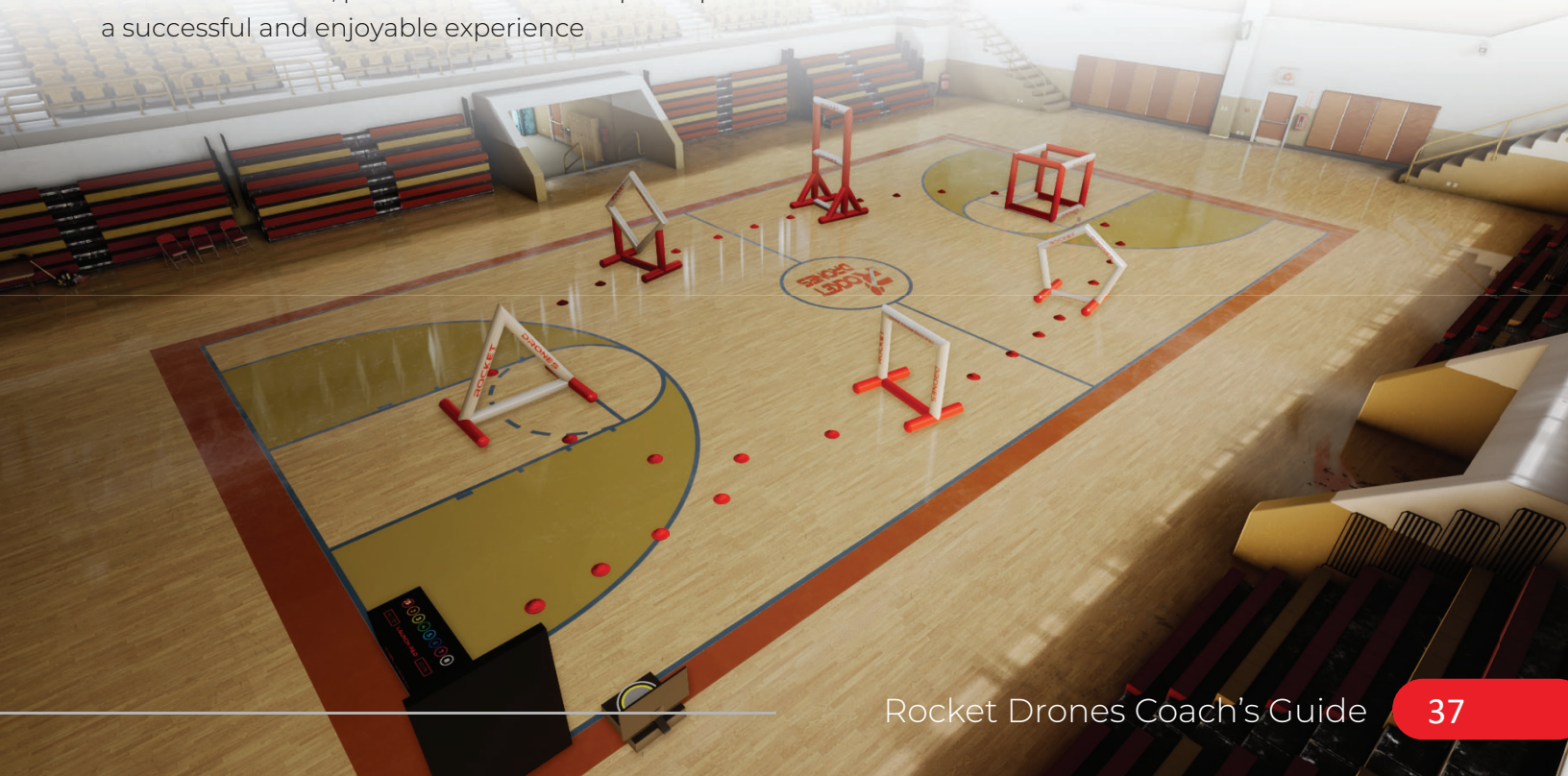
Race Conclusion : After your race, avoid "freestyling" and proceed to fly your drone to the designated landing area for a safe landing.

Sportsmanship : Display proper sportsmanship and conduct at all times. Poor conduct includes actions that affect another pilot's race or equipment through speech or tampering, as well as any aggressive behavior.

Respect and Courtesy : Harassment of coaches, pilots, sponsors, or spectators will not be tolerated.

Disqualification : Any pilot attempting to win by irregular means, failing to follow a Team Coach's instructions, disregarding safety rules, or engaging in unsportsmanlike behavior during a competition may face disqualification. instructions, disregarding safety rules, or engaging in unsportsmanlike behavior during a competition may face disqualification.

These guidelines are crucial for maintaining a safe and respectful environment during drone racing activities. Coaches, please ensure that all participants are well-informed about and adhere to these rules for a successful and enjoyable experience



11. ADDITIONAL ACTIVITIES

11.1. Fun Flights

Informal flying sessions for students to have fun exploring their drone's capabilities. Emphasizing creativity and enjoyment. This can be completed by setting up the course and letting the students fly around without racing.

11.2. Drone Frame Challenge

Engage students in designing custom drone frames using CAD software. Fostering innovation, problem-solving, and hands-on learning.

11.3. Course Building Challenge

Create challenging drone courses using CAD software or simulators. Students design intricate courses with obstacles, gates, and elements to test flying skills and strategic thinking

11.4. Stop Challenge

Enhance precision drone control and quick stopping or turning skills. Students race to a cube gate with one side covered by a bed sheet. The aim is to enter from opposite the bedsheet, stop/turn and exit the gate where they entered.

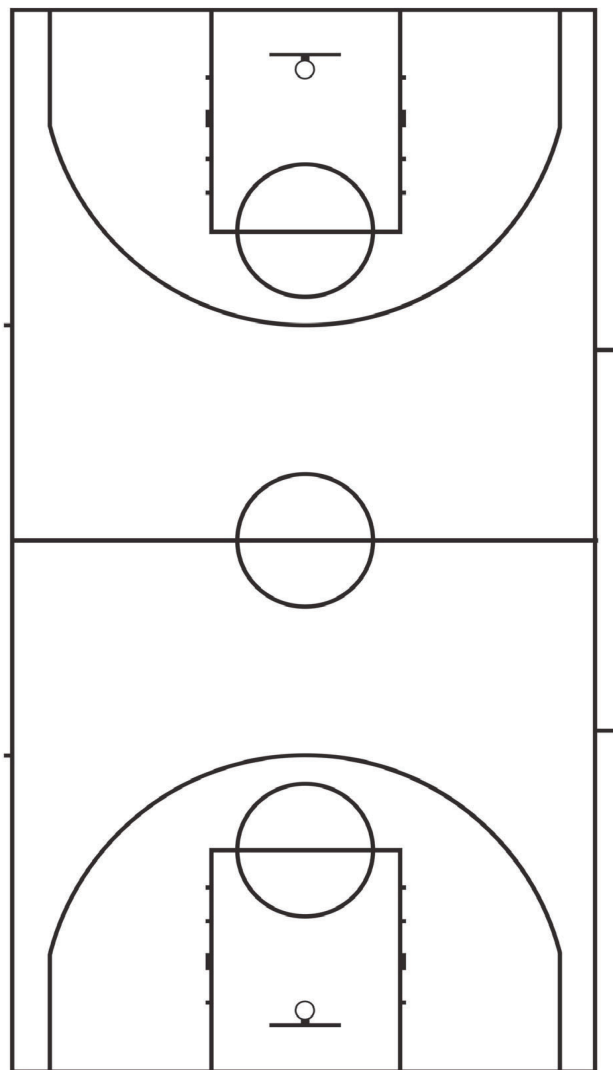
11.5. Capture the Flag

Promote strategic thinking, teamwork, and flying skills. An interactive game where teams compete to capture each other's gates, encouraging students to plan strategies and work together.

11.6. Rapid Gates

Test agility, speed, and reflexes in a fast-paced racing challenge. Students navigate through a series of gates as quickly as possible, challenging their agility and reflexes while maintaining control.

Remember to adapt these activities based on the skill level and age group of your participants. Have fun exploring the world of drone flying and fostering a passion for technology and innovation!



12. ANNUAL RENEWALS AND REFRESH KITS

Being a part of the Rocket Drones racing team comes with exciting opportunities and experiences. However, it's important to note that there is a yearly student league renewal fee per student that is part of the team. This renewal fee ensures that our students are well-equipped to excel in the world of FPV drone racing. When students renew their membership, they gain access to a range of benefits that enhance their racing journey.

The renewal package includes : (Renewal Dates are based on Jersey Order date)

Drone Team Refresh Kit : Our comprehensive kit provides students with new spare parts and maintenance walkthroughs to keep their drones in top-notch condition. It includes everything they need to perform routine maintenance, troubleshoot issues, and make necessary repairs. This kit is designed to support students in taking care of their racing drones, ensuring they perform at their best.

10 New Drone Batteries per Racer : Drone batteries are a crucial component of any successful racing team. With the renewal, students receive 10 new drone batteries, ensuring they have sufficient power to keep racing at peak performance. These fresh batteries are ready to deliver the power needed for fast and thrilling flights.

Rocket Drones Race League Renewal : This all-inclusive renewal package provides students with access to a wide range of resources and services, including race fees, team web portal management, race gate timer support, video library access, equipment repair coverage, and racecourse management. It's your passport to a seamless and well-organized FPV drone racing experience, backed by a dedicated team committed to helping you succeed.

By renewing their membership, students can continue their journey in the Rocket Drones league with confidence, knowing they have the support and resources needed to excel in this exhilarating sport. We're excited to have you on board for another thrilling season of FPV drone racing!



13. BATTERY MANAGEMENT AND DISPOSAL

Inspect Your Battery Regularly : Regularly check your batteries for any peculiar smells, abnormal temperatures, deformation, or discoloration. If you notice any of these, stop using the battery immediately and replace it to ensure safety.

Clean Battery Connectors : Keep the battery connectors clean. Use a dry cloth to wipe them before use. Dirty connectors can cause energy loss and difficulty in charging.

Safe Disposal :

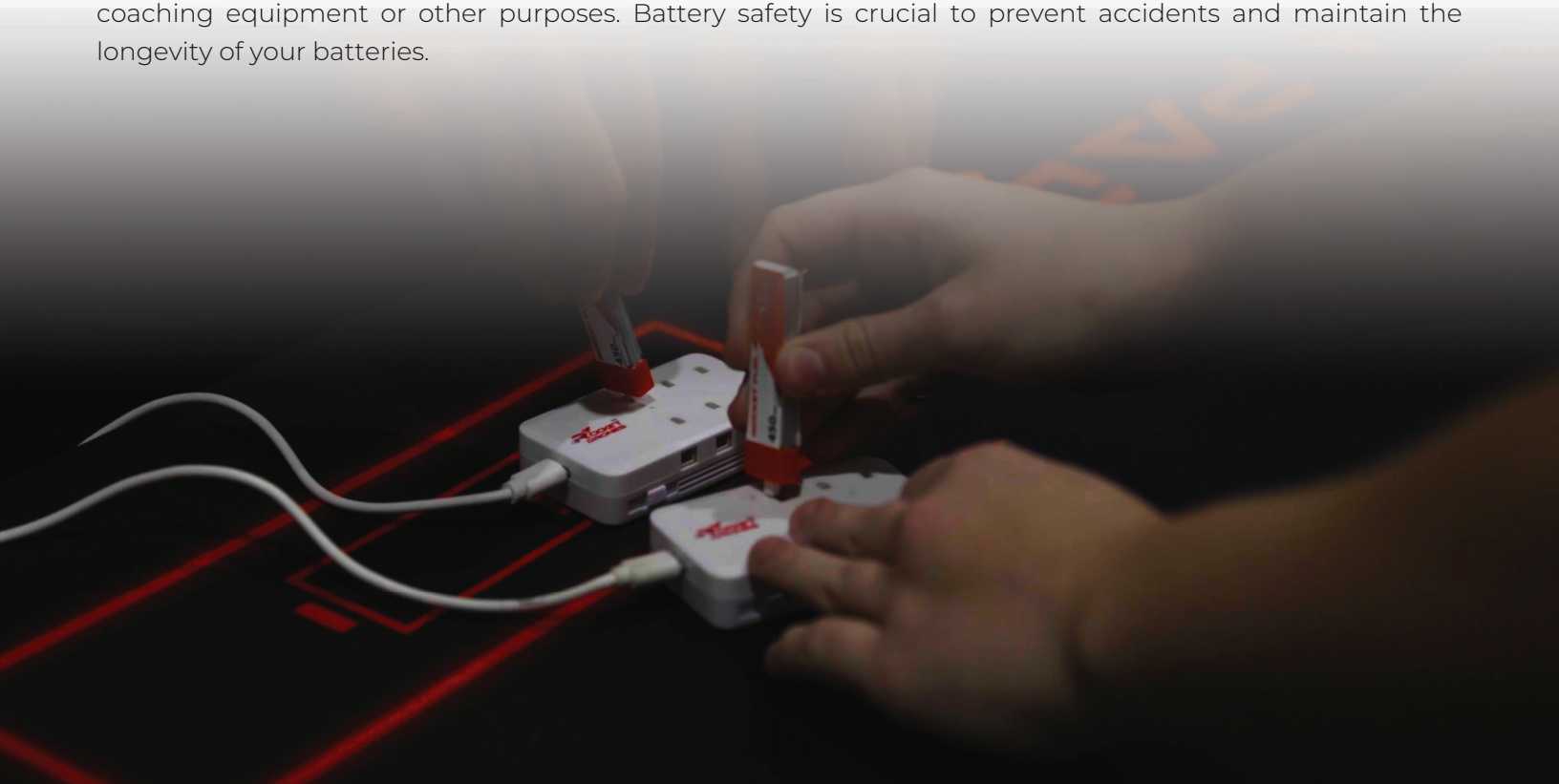
Improper disposal of batteries can be a fire hazard. To safely dispose of a battery, follow these steps :

- Fully discharge the battery before disposal by flying battery to exhaustion.
- Use tape to cover the battery output connector to prevent accidental short circuits.
- Always check and follow local regulations for proper battery disposal or recycling.

Additional Precautions for Battery Use and Charging :

- Do not immerse the battery in water. Store it in a dry area if not used for an extended period.
- Keep batteries away from children. Swallowed batteries require immediate medical attention.
- Do not use or store batteries near heat sources, microwave ovens, or open flames.
- Only use a charger that meets the battery's specifications when charging.
- Never throw a battery into a fire or heat it.
- Avoid using or storing batteries in extremely hot environments, such as in cars under direct sunlight or hot weather, as this can affect battery performance and lifespan.

By following these guidelines, you can ensure the safe and efficient use of your batteries, whether they are for coaching equipment or other purposes. Battery safety is crucial to prevent accidents and maintain the longevity of your batteries.



14. TROUBLESHOOTING

Prop Direction : Ensure that the propellers are correctly attached to each motor with the proper orientation. Ensure they match the motor's designated rotation direction. Incorrectly installed propellers can lead to unstable flight and handling issues.

Binding : Confirm that the controller is properly bound to the drone. If not, rebind the transmitter to the drone as per the manufacturer's instructions. Inadequate binding can result in a loss of control over the drone.

Only bind one drone at a time. Do not have other drones powered on.

FPV Channels and Channel Bleed Over : Ensure that there's no interference or "bleed over" from nearby devices using the same frequency spectrum, as this can affect your drone's video signal. If experiencing interference, consider changing the frequency channel on both the goggles and the drone.

- Verify that the drone is set to the correct channel, matching the one on your goggles.

Remote Calibration : Calibrate your transmitter or remote control to ensure that it's functioning correctly. Improper calibration can lead to erratic control responses.

Drone Calibration : Drone calibration is crucial for stable flight. Calibrate the drone's sensors, including the gyroscope and accelerometer, according to the manufacturer's instructions. Calibration errors can cause flight instability, drifting, or unwanted movements.

Battery Status : Check the battery status on all devices before operation and each battery before installation. Low battery levels can lead to signal loss or unintended behavior. Ensure your batteries are adequately charged.

Mechanical Inspections : Conduct regular mechanical inspections to ensure all components, including motors, propellers, and connectors, are securely fastened and in good condition. Flight Engineers are responsible for ensuring that each drone is ready to fly before each race as well as battery inspections.

Receiver and Antenna Check : Inspect the receiver and antenna on both the drone and the transmitter. Damaged or improperly connected antennas can result in reduced range and signal problems. Our troubleshooting playlist includes everything from basic drone maintenance to advanced drone repair. Scan the below QR code for a complete video library of common troubleshooting solutions.



Troubleshooting

15. CUSTOMER SUPPORT

Our Customer Support team is available should you require any assistance or have questions at any stage of your FPV coaching journey. Please don't hesitate to reach out to us at support@rocketdrones.com. Our dedicated customer support team is here to support you every step of the way. We pride ourselves on offering excellent customer service, and we're ready to assist you with any inquiries, whether they pertain to technical issues, curriculum guidance, or program implementation. Additionally, we provide the convenience of live-streamed demonstrations and troubleshooting sessions, ensuring that you have direct access to expert assistance whenever you need it. Your success and the success of your students are our top priorities, and we're committed to helping you achieve your goals in the world of FPV drone racing.

16. REFERRALS

Rocket Drones offers a school referral program that is designed to incentivize league growth and allow more racing teams. Referral bonuses include anything from refresh kits to merchandise and even an upgraded drone kit. Orders must be placed directly with Rocket Drones. Click [here](#) for our referral form.



17. GLOSSARY

Coach: An individual responsible for guiding, training, and managing a rocket drone racing team, often an educator or enthusiast in STEM or drone technology.

Dashboard: An online platform used for managing team information, scheduling events, and accessing resources for drone racing activities.

Drone Racing Simulator: A computer program that mimics the experience of flying a drone for training purposes, allowing pilots to practice without the risk of damaging real drones.

Flight Engineer: A team role focused on the technical maintenance, repair, and preparation of drones to ensure they are race-ready.

FPV (First Person View) Racing: A type of drone racing where pilots control drones based on a video feed transmitted directly to goggles or a monitor, simulating the view from the drone's perspective.

Heats: An organized series of competitions and events in which drone racing teams participate, often culminating in national or regional championships.

Line of Sight (LOS): Operating a drone without FPV goggles.

Pilot: A team member who operates a drone during races and practice sessions, responsible for navigating the course and competing against other pilots.

Race Manager: A role within the racing team or event organization responsible for overseeing the logistics, safety, and fairness of races.

Rates: Adjustments made to control settings that increase the responsiveness of the drone.

Refresh Kits: Packages that include essential parts and supplies needed to maintain or update racing drones, provided annually or as needed.

Safety Officer: An individual tasked with ensuring the safety of participants, spectators, and equipment during drone racing events and practice sessions.

Simulator Setup: The process of configuring and utilizing a drone racing simulator, including software installation and calibration for training purposes.

Visual Observer: A designated person responsible for maintaining direct visual contact with drones during flight to assist pilots and ensure safety.

ROCKET DRONES RACE ACTIVITIES

ALTITUDE CONTROL

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.

ROCKET DRONES RACE ACTIVITIES

BOX FLIGHTS

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.

ROCKET DRONES RACE ACTIVITIES

360° YAW ROTATION

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.

ROCKET DRONES RACE ACTIVITIES

SPEED CONTROL

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.

ROCKET DRONES RACE ACTIVITIES

SLALOM

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.

ROCKET DRONES RACE ACTIVITIES

INFINITE LOOPS

STUDENT COMPLETION CHECKLIST

Student's Name	Normal Mode		Sport Mode		Manual Mode*	
	LOS	FPV	LOS	FPV	LOS	FPV
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Students who have completed all other Racing Activities may progress to Manual Mode and attempt the same maneuvers.

Please print additional completion checklist pages as needed.



**ROCKETTM
DRONES**