



DRONE RELAY

The Drone Relay activity enhances teamwork and drone piloting skills. Students, in teams of up to six, navigate a course with obstacles, each taking turns to load a ping pong ball onto the drone and complete a lap. This activity fosters strategic planning, communication, and coordination. Teams earn points for each completed lap, encouraging friendly competition and skill refinement. Overall, the Drone Relay promotes hands-on learning and a positive attitude toward STEM.

Activity Type	Competitive
Activity Time	5-10 Mins
Student Groups of	3 groups of up to 6
Difficulty	Medium
Supplies	Safety Gear, Drone, Controller, Batteries, Landing Pads, Ping Pongs
Designated Flight Area	Clear area free of obstructions and moving air. Recommend atleast 10x10 ft.

PREFLIGHT CHECKLIST

Site Safety Inspection

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

Preflight Inspections

- ✔ Inspect drone for any damage
- ✔ Debris or hair in the motors
- ✔ Inspect battery and verify voltage
- ✔ Insert battery until fully seated
- ✔ Connect and verify battery
- ✔ Apply safety gear

STEP #1

Have students use the inflatable obstacles to arrange a relay course appropriate to their flying skills.

STEP #2

Divide students into three teams of up to six per team. Each team starts with 2 ping pongs, drone, controller, a landing pad and batteries.

STEP #3

Have each pilot begin the binding procedure one at a time.
Binding procedure can be found [here](#).

STEP #4

Once pilot and loader are ready, have timer keeper begin a 3 minute timer and say "Go." Each loader should place the ping pong onto the drone and indicate to the pilot to take off.



STEP #5

Each pilot should navigate the course and attempt to land back at the take off pad. After landing the loader will remove the ping pong from the drone.

STEP #6

The pilot will hand the controller to the next pilot.
The loader will hand the ping pong to the next loader.

STEP #7

The loader will then place the ping pong on the drone and indicate to the pilot. The pilot will then take off and fully complete the course.

STEP #8

Relay rounds continue for 3 minutes and teams receive one point for each lap completed with the ping pong.

Pilots who lose their ping pong during the course, must return to the landing pad and reload another ping pong.

ROCKET DRONES SCORE SHEET

DRONE RELAY

Team Students	Points	Team Students	Points
Blue Team		Yellow Team	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
Total		Total	
Red Team		White Team	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
Total		Total	
Green Team		Pink Team	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
Total		Total	



Team with highest score wins!!!