



# AIR TRAFFIC CONTROL "SAYS"

In this activity the students will learn and hone basic flight controls and flight characteristics of the drone. They will also follow authorized commands and control the drone in a safe classroom environment.

Air Traffic Control Officers direct pilots when flying. They are responsible for the safe and orderly movement of aircraft both on the ground and in the air. Their role is critical in preventing collisions, organizing air traffic flow, and managing busy airspaces efficiently. In this activity one student will act as Air Traffic Control (ATC) officer and direct pilots through courses and obstacles by giving clear flight instructions to the pilots.

## PREFLIGHT CHECKLIST

<b>Activity Type</b>	Competitive
<b>Activity Time</b>	5-10 Mins
<b>Number of Students</b>	Up to 6 at once (1 ATC officer)
<b>Difficulty</b>	Easy
<b>Supplies</b>	Safety Gear, Drone, Controller, Batteries, Color Stickers
<b>Designated Flight Area</b>	Clear area free of obstructions and moving air. Recommend atleast 10x10 ft.

### 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 each pilot begin the binding procedure one at a time.

Binding procedure can be found [here](#).

Each drone should have a colored sticker applied to identify between pilots.

## STEP #2

After all drones are bound, begin a 3 minute timer and have one student (ATC Officer) begin to give the commands. ATC Officer should observe and record which pilots are failing to follow ATC commands or following unauthorized commands.

**Pilots should only follow commands that begin with "ATC says"  
All other commands are unauthorized.**

### STEP #3

Pilots receive strikes for not following ATC commands or for following unauthorized commands. Similar to golf the goal is to have the least amount of errors and the lowest score.

### STEP #4

ATC Commands can be as easy or as difficult as the student's flying skills such as:

"ATC says fly up to eye level"

"ATC says perform a front flip"

"ATC says fly through the circle gate"

"ABC says land"

### STEP #4

After the 3 minutes are up and the drones have landed. The ATC officer should total up the strikes received by each pilot and record on the student score sheet.

### STEP #5

Repeat this activity with each student and rotate the role of the ATC Officer.

### POWER UP!!!

To add another level of complexity have the ATC officer introduce commands based on the drone pilot's sticker color and add in obstacles.



# ROCKET DRONES SCORE SHEET

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## ATC SAYS

Student's Name	Total Strikes
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Lowest Score wins!!!