



DRONE FISHING

Drone Fishing is designed to develop students' precision control and problem-solving skills. By using pipe cleaners to create hooks for picking up standing paperclips, students will learn about design, engineering, and manipulation techniques. This hands-on activity emphasizes the importance of careful planning and control, enhancing their understanding of how drones and similar mechanisms can be used in practical applications. Through iterative attempts and adjustments, students will also develop perseverance and creativity in overcoming challenges.

Activity Type	Competitive
Activity Time	5-10 Mins
Student Groups of	Up to 6 at a time
Difficulty	Hard
Supplies	Safety Gear, Drone, Controller, Batteries, Paper clips, Pipecleaner
Designated Flight Area	Clear area free of obstructions and moving air. Recommend at least 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

Pilots should begin by designing their pick up device with the pipecleaner and attach it to the bottom of the drone using the attachment bar below the battery. Pilots are encouraged to try different angles and shapes in their design.



STEP #2

Then have each pilot bend the paperclips in a way they think will be the easiest to pick up and move. Place up to ten of these around each of the designated area.



STEP #3

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

STEP #4

Begin a 3 minute timer and have each pilot take off. They should attempt to pick up and move the paperclips from the designated area to their landing pad. Pilots may pick up and move as many paperclips as they wish at a time.

STEP #5

After each group, pilots should count their retrieved paperclips. Record their results on the included student score sheet and set up the course for the next group of students by returning the paperclips to the designated area.

ROCKET DRONES SCORE SHEET

DRONE FISHING

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

Highest score wins!!!