





## TITLE: DRONE PROGRAMMING & PILOTING

THEME: Programming with Parrot Mambo Drones Swift Playgrounds

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PARTICIPANTS: A team from each school consisting of 2 or 3 students.

SKILLS: Programming, drone piloting.

The programming of the tests will be carried out on iPads using the Swift Playgrounds app. Participating students must prepare the test before passing the exercises proposed in the Parrot Education section



The contest will be done using ipads from the host school.

## **OBJECTIVES:**

To be able to programme a drone using Apple's Swift language to perform different tests.

## FORMAT:

The contest will consist of 3 tests:

- 1) The participating team will have 15 minutes to programme a test that will be given out at the beginning of the contest. This must be programmed on the drone so that it can perform the required manoeuvers.
- 2) Obstacle race. The teams, in groups of 5 students maximum, will pilot the drone through an obstacle course. These groups will be chosen by draw. The FreeFlight Mini app on the iPad will be used to pilot the drone. The team that overcomes all obstacles in the shortest possible time will be the winner of the test.
- 3) A Kahoot quiz will be played with questions about drone handling and programming with Swift Playgrounds.

## **EVALUATION:**

1st Test: Up to 2 points.

2nd Test: The winners of this test will get 2 points.

3rd Test: Points will be awarded according to the qualifying order:

1<sup>st</sup> place: 2 points 2<sup>nd</sup> place: 1,5 points 3<sup>rd</sup> place: 1 point 4<sup>th</sup> place: 2 points 5<sup>th</sup> place: 0,5 point

The rest of those classified will get 0 points.

The team with the most points in all the tests will be the winner.

In the event of a tie, the team that has been best classified in the 3rd test will be the winner.