



THE MINISTRY OF TRANSPORT,
COMMUNICATIONS AND HIGH TECHNOLOGIES
OF THE REPUBLIC OF AZERBAIJAN

AREA
Azerbaijan Robotics Engineering Academy

robo**o**park



I am a Pilot
--- Flying for Dreams ---

World Drone Olympiad

Drone Challenge Category

Game Description, Rules and Scoring

FLYING FOR DREAMS





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Introduction

Based on research Small hobbyist drone sales are likely to drastically increase from 1.9 million in 2016 to 4.3 million in 2020.

Things that Drones teach Kids :

✖ Aerodynamics

Drones require specific aerodynamics to fly. The way the propellers spin changes the way a drone turns or moves across a 3-dimensional space. Maneuvering a drone requires practice and teaches an understanding of aerodynamics.

✖ Cognitive Development and Critical Thinking

It doesn't matter whether you're flying a drone indoors or outdoors. Reacting to changes in flight patterns or environment allows your child to improve the cognitive reasoning skills. They will gain a better understanding of cause and effect. And they will be better equipped to make quick decisions under stress.

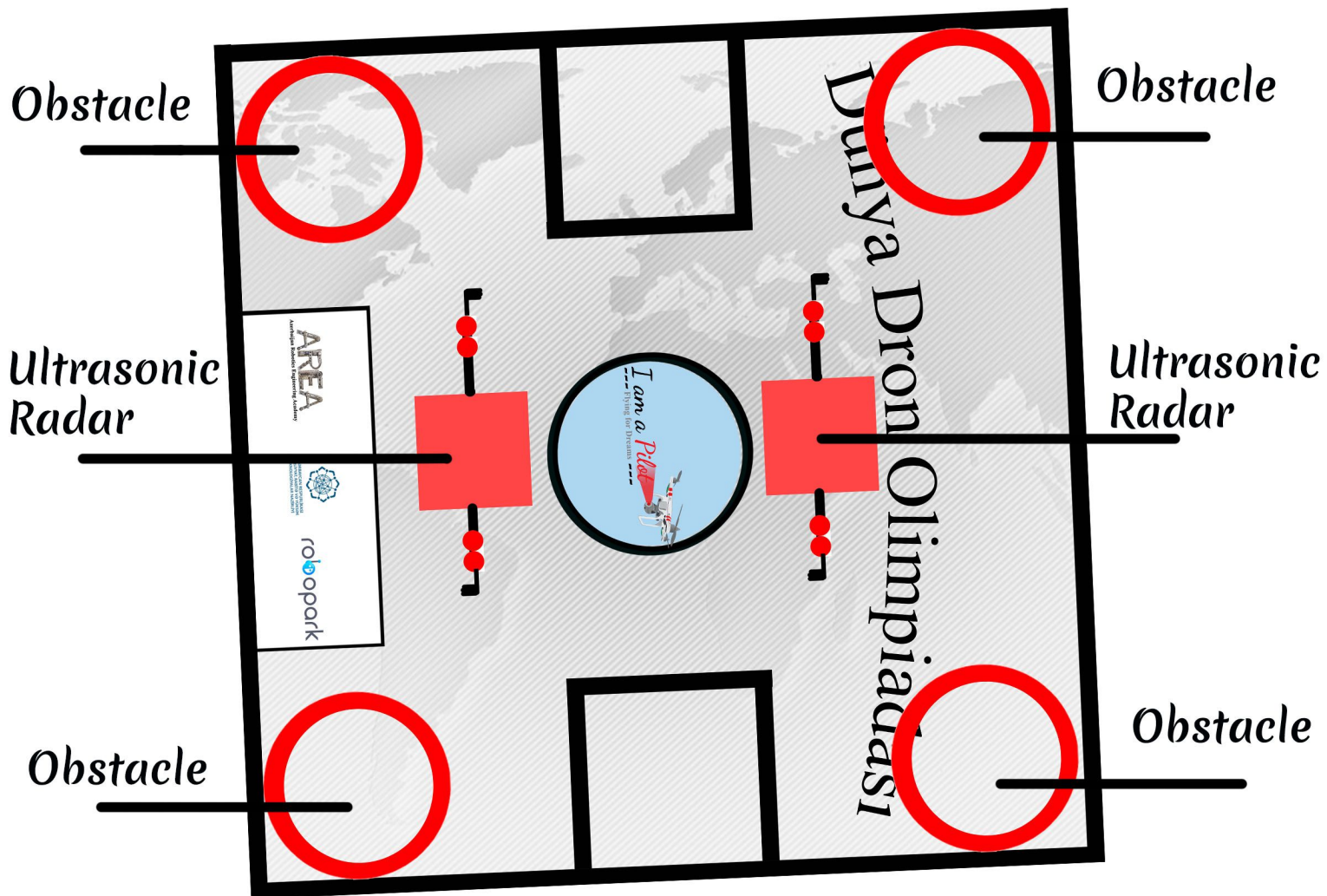
✖ Introduction To Coding and Electronics

Once your kid has gotten good at flying the drone with a remote control they can begin tackling the more advanced forms of drone flying. They can learn to code and program drones to fly specific patterns and become familiar with the internal electronics that make the device work.



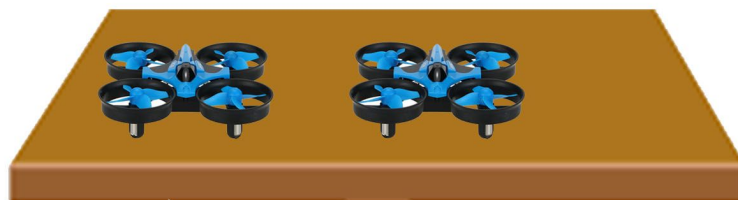


Game Description



Challenge in the category of the Drone Challenge is to gain maximum points as fast as possible.

In the game arena, teams will launch their drones from platforms



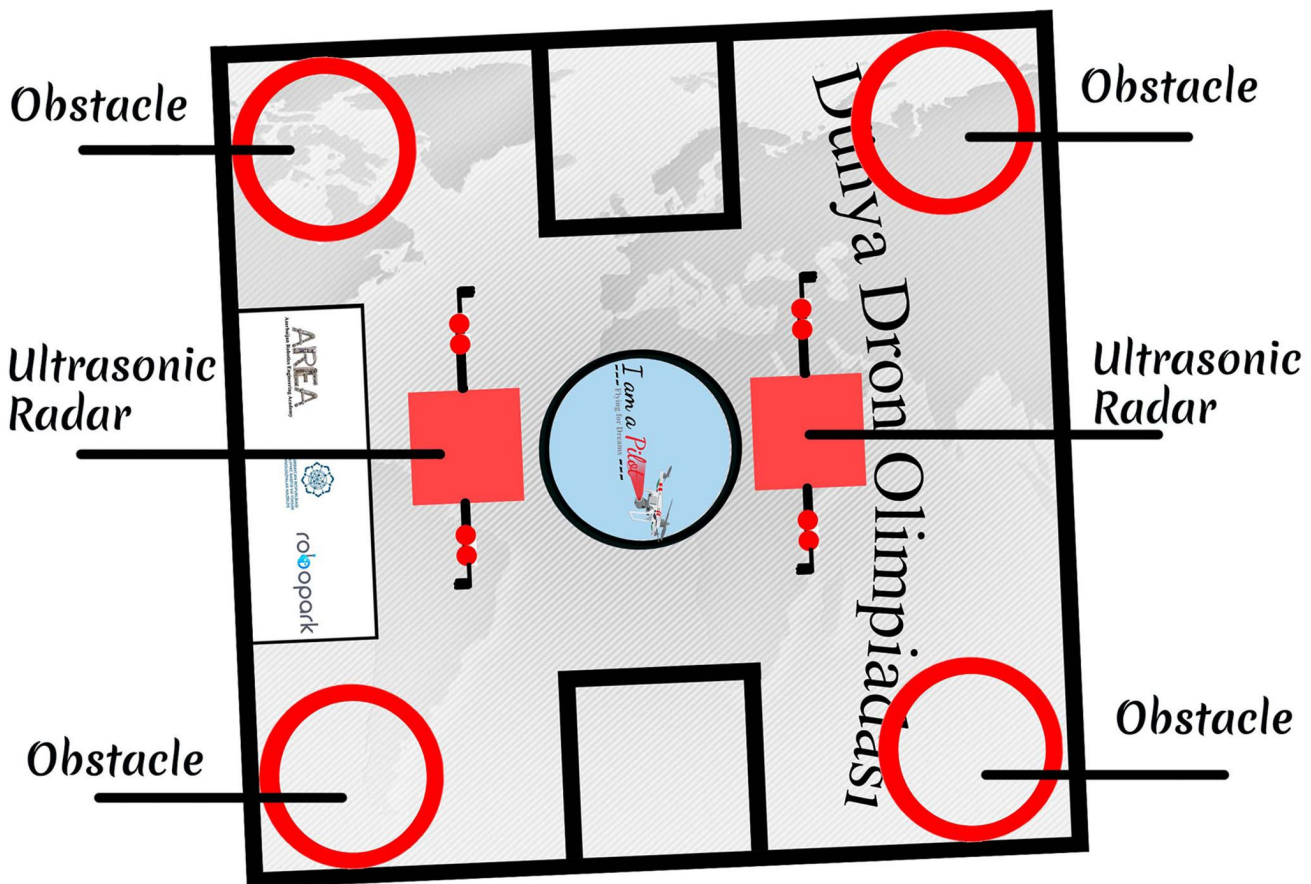


Game Rules

1. Each person has 2 chances to try improve its race time.

There are 4 end points challenger gets 10 points for each end point.

1.1 There 2 Ultrasonic Radar with 4 sensors. Pilots that cross up of the sensors and raise the flag gets 15 points for each flag.



2.1 Pilots will be divided into group with 4 teams by randomly choosing.

2.2 Pilots which hold first 2 places will pass to elimination stage from group stage.

3. Duration of the game is 1 minute.

3.1 If there is the same score for 2 pilots their finish time will be considered





3. Calculation of Score

Pilot will get 10 points for each obstacle that crossed successfully.

Pilot will get 15 points for each raised flag

There is 100 points in the game totally, Pilot that got more than opposition is the Winner.

3.1 If they have the same score -50 points Referee will consider finish time quicker Pilot is the Winner.



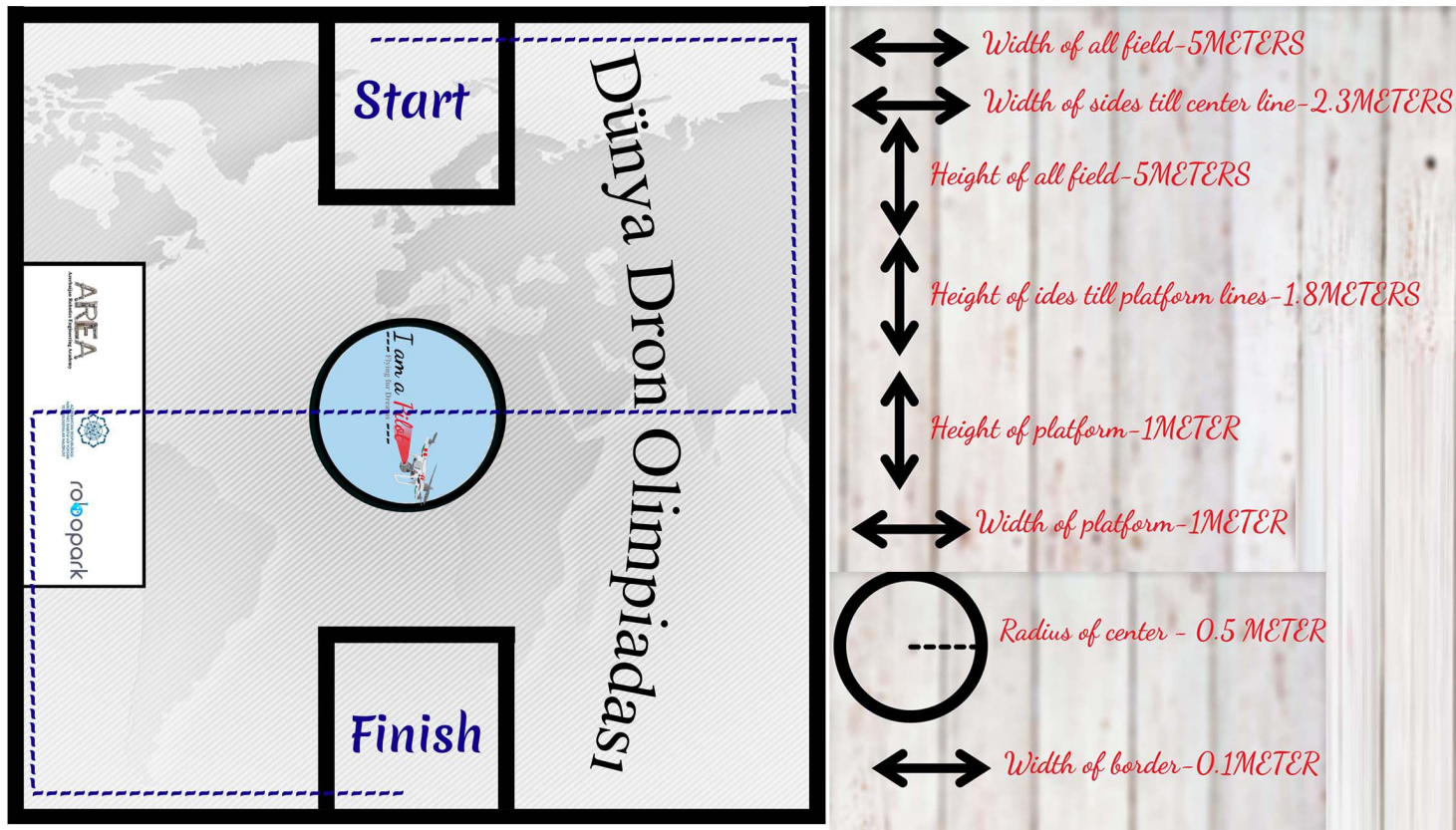


WORLD DRONE OLYMPIAD
DRONE CHALLENGE CATEGORY

Field Specifications

- The internal dimensions of a game table are 4980 mm x 4980mm.
- The external dimensions of a game table are 5000 mm x 5000mm.
- The primary colour of the field surface is white.

Game Mat Specifications



- All black lines area 10 ± 1 mm
- The dimensions may vary within 5 ± 1 mm