



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

AREA
Azerbaijan Robotics Engineering Academy

roboopark



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

World Drone Olympiad

Drone Football Category

Game Description, Rules and Scoring

FLYING FOR DREAMS



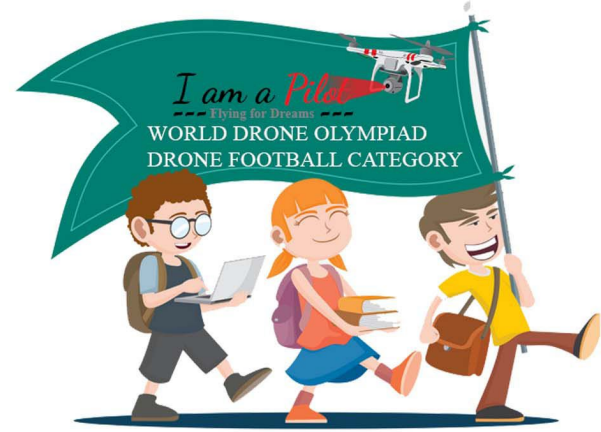


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Introduction

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.

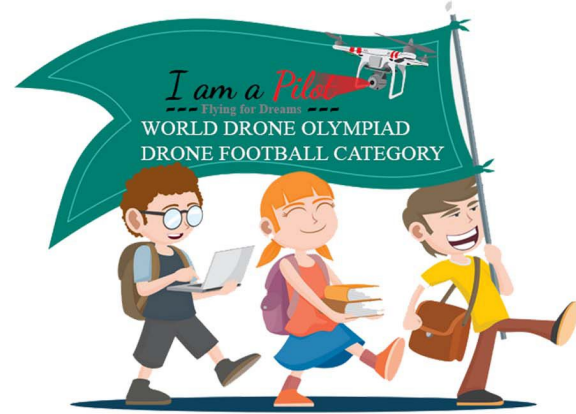
✖ Cognitive Development and Critical Thinking

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.

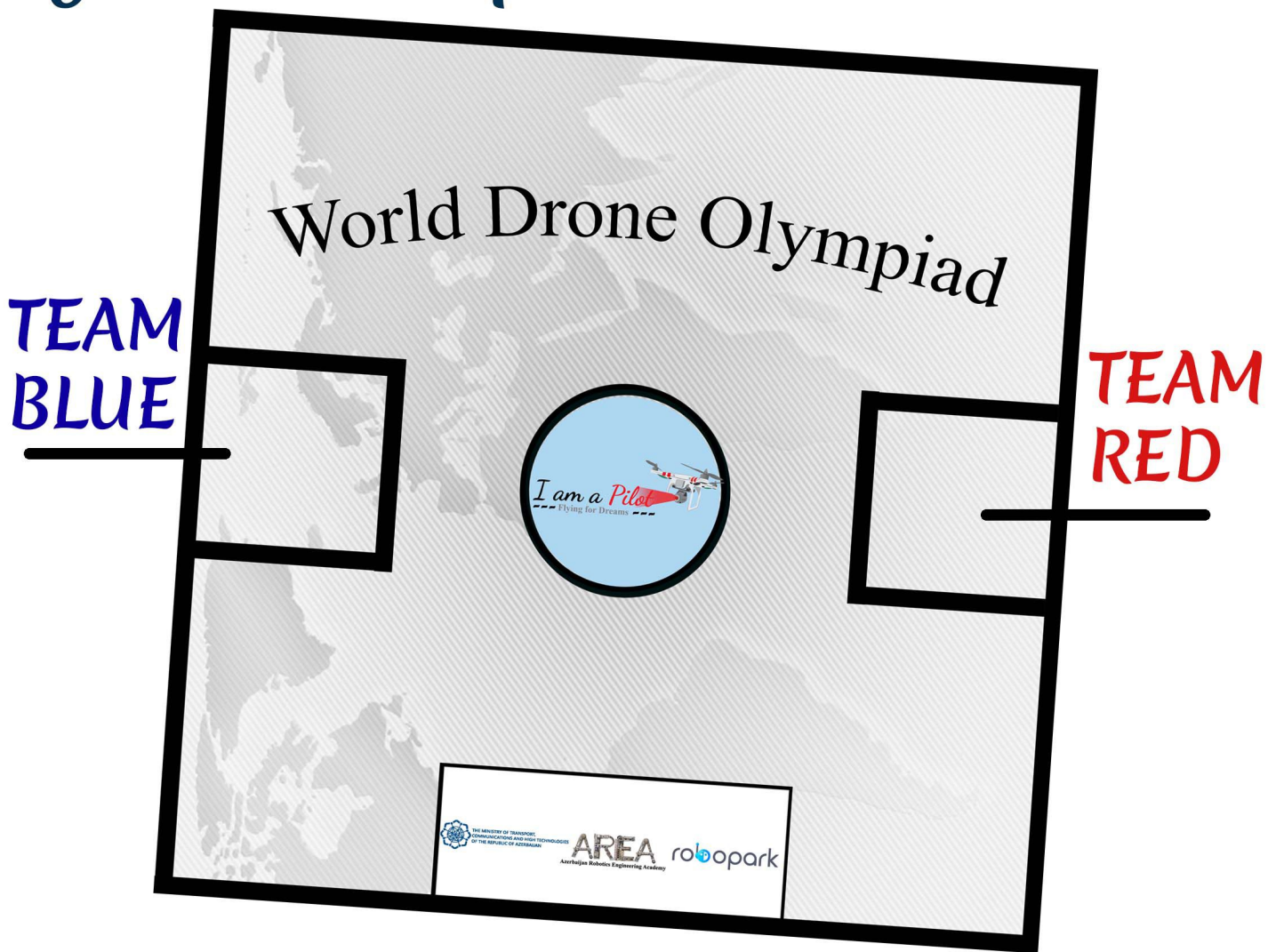
✖ Introduction To Coding and Electronics

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.



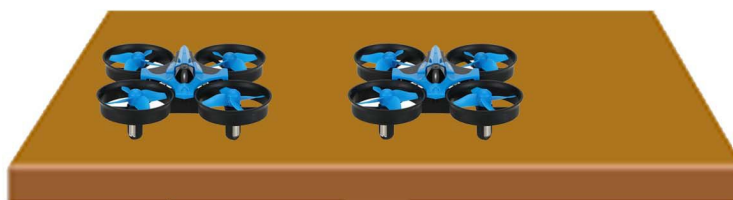


Game Description



Challenge in the category of the Drone Football is to score more goal than your opposition.

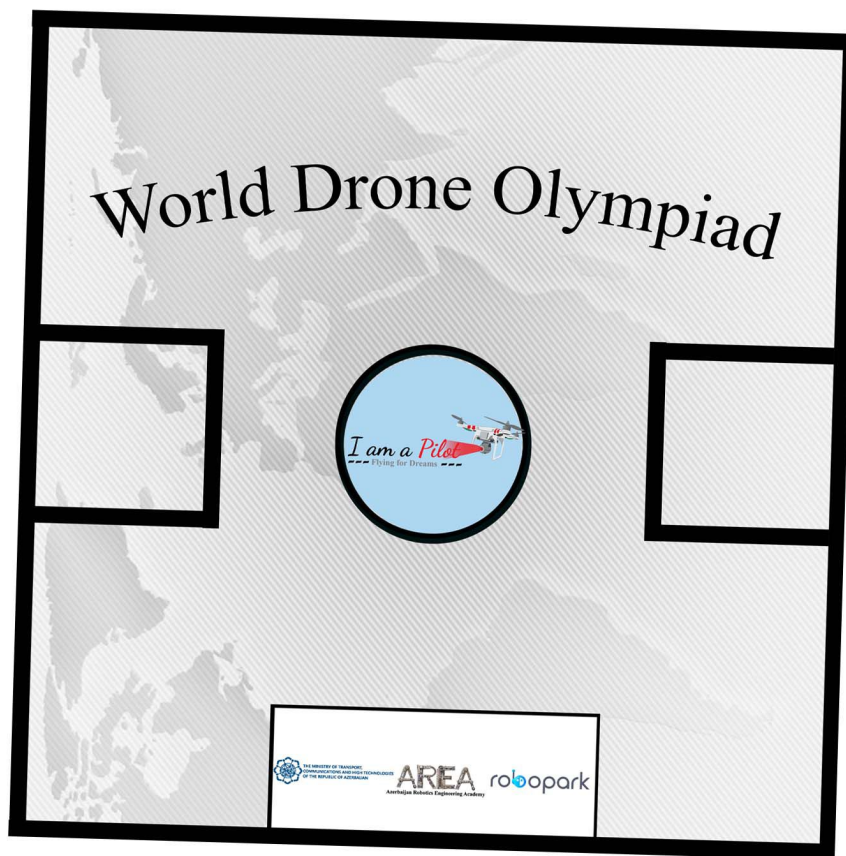
In the game arena, teams will launch their drones from platforms





Game Rules

1. Each team has 2 drones and 2 pilots. There are 2 different colour platforms (blue, red). Before each match colour of team will be defined by tossing coin.

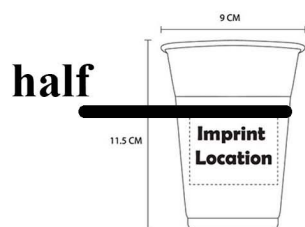


Overlooking of Table

2. Each team will have 2 pilots. Forward and Defender, for each team the ball that is standard ping pong ball will be placed inside of a half of plastic cup will be fixed on the each pilot's drone.

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

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



Dimension of ping pong ball : 40 mm

Dimensions of plastic cup : 9 X 5.7 X 1.5 cm





3. Defender has aim to stop opposition's forward and defend forward player of the team from opposition's defender. While game, crash is not foul and match will not stop.

3.1 If Pilots drop their ball for score or by accidently they will have 2 opportunity- they can go back to their platform and replace new ball or they can play without ball as defender they can just try to stop opposite team's attacks.

4. Duration of the game is 1 minutes.

Team that scored more is the winner of the game.

4.1 If there is not goal after 1 minute in group stage each team gets 1 point.

4.2 If there is not goal after 1 minute in the elimination stage penalty system will be considered,

Penalty system-Each team will try to score one by one while opponent drones are not in the game. Teams will have 1 minute limit in penalty system.

5. How will teams score a goal?

They just need make flip on the platform of the opposite team.

if ball touches the platform of the opposite team Team is the Winner.

5.1 If pilots drop their drones to opponent's platform and ball is in the platform it is considered as Goal.

5.2 Ball is inside of cup, outside or even if ball bounce from platform is not matter All of following situations will be considered as Goal.

5.3 If pilots drop the ball to their own platform it will be considered as an own goal and opposite team will get 1 point.

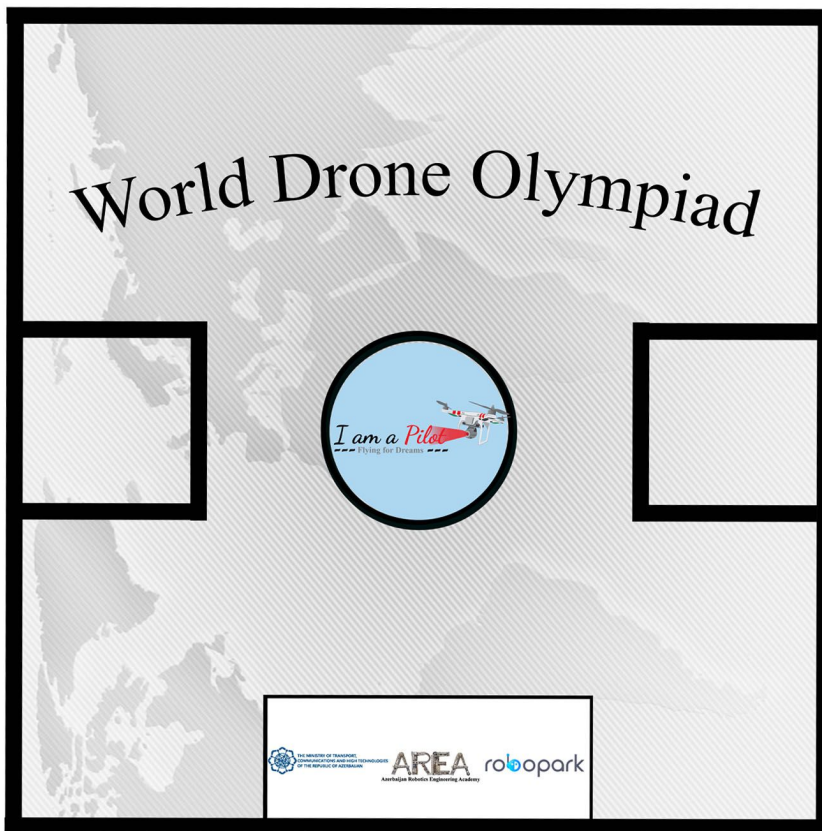




Field Specifications

- 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

