

## Transporter



### Objective

- Objective: Teams will use a flying drone or quadcopter to transport a ping pong ball from the start of a course through a floating ring and ultimately into a cylinder at the end of the course. Other robots can assist with placing the ping pong ball on the drone but are not required. No human contact is allowed.

### Parameters

- The maximum weight for the drone is 3 pounds including battery pack  
Unfolded: - 250 × 250 × 125 mm (L×W×H)
- Larger or heavier vehicles will be disqualified. Maximum of 4 propellers.
- The vehicle can fly no higher than 4 feet or it will be disqualified. It must also stay within the game area boundaries or it will be disqualified.
- The ball will start in the square on the ground and has to be TRANSPORTED to the cylinder using any robots.
- The drone must travel through the ring with the ball or it will be disqualified.
- You can use a maximum of 2 robots outside of the drone to help transport the ball from the square, through the ring, and into the cylinder.
- Time will begin when the judge says "GO" and ends when the ball successfully enters the cylinder after being transported through the ring via the drone. The team with the fastest time wins.
- **UPDATE - 1/2/19** - The course will be a maximum of 20 feet long. The width of the course will be 3 feet wide. The cylinder at the end of the course where the ball has to be dropped into will be mounted 16 inches off the ground and will have a 3 inch diameter. The ring that the drone has to pass through will have a diameter of 18 inches. The drone size has been updated to (250 x 250 x 125)

### Notes

- In the case of a tie, there will be a re-race on the course in the opposite direction.
- If the ball is dropped, the team can re-attempt however the clock will continue to run and the drone must travel through the ring WITH the ball.

### Materials

- Drones can be purchased or created as long as they meet the size and weight requirements.