CREATE

CREATE Drones Challenge Whirlwind 2019-2020

The Game: Whirlwind, a drone-robotics competition for students in 6th - 12th grade, is played on a 30'x30'x7'5" arena. Alliances, made up of two randomly paired teams, collaborate to finish the course as quickly as possible, racing against another randomly paired alliance. Races are up to two minutes in length. The controller of the drone must be passed from one pilot to the other between fifty and seventy seconds in a race.

The object of the competition is to finish the course as quickly as possible and then land on the landing pad. The first drone of an alliance to land on the landing pad after the course is completed is deemed the winner for that alliance and each team in that alliance is awarded two points for the win. For ties, each of the four teams is awarded one point.

There are tasks that must be accomplished by each alliance before they are able to land and end the race: five balls on posts must be knocked down, five flags must be knocked over, and one set of nine balls on a round platform must be cleared. Last, a team-built game mechanism must perform the Whirlwind task. All balls and flags will be standard game elements. The game mechanisms are to be designed by the teams themselves and placed on the field by the teams in designated locations. The size of the mechanism will have restrictions, but the actual shape, weight, and construction of the mechanism will be an engineering challenge left to each team.

Each team must take a standard drone and build a protective guard around the drone, lifting mechanism, and any other aide deemed beneficial,as long as the drone with accessories does not exceed 18"x18"x12" and is judged to be safe (no sharp edges, etc) by event inspectors/judges.

All drones will start from the launch pad. Then like a whirlwind, will move as quickly as possible to finish the course and land on the landing pad!

The Event:

- **Inspections**: Teams will start with registration and inspection. Drones and team-built mechanisms must pass inspection before they will be allowed to compete.

- **Solo Flights:** Each team will have opportunities to fly solo to complete the season's solo task.

- **Qualification Races:** Randomly paired alliances will compete through qualifications with teams seeding themselves for the elimination rounds based upon performance.

- **Alliance Selection:** Teams will invite other teams to join them in a two (two) team alliance for the elimination races/bracket.

- **Eliminations:** Winners of the elimination tournament will be deemed the Tournament Champions

- **Judged Awards:** Judged awards will be determined during inspections, during race play, as well as other ad hoc judges interactions during the day.

- **Awards Ceremony:** The day ends with closing ceremony and presentation of awards.