

99+ Luft Balloons Summer 2021 Kickoff Event

Friday, May 14, 12:00 PM - HUB Ballroom

1 Event Details

Anyone who has not flown a blimp robot is welcome to participate in this competition.

Competitors will each be given one of the four commercial 'Air Swimmers' fish with a modification kit including new propulsion mechanisms and fins. Competitors will initially be given 30 minutes to fully customize their designs by deciding where to attach the various components.

This competition will serve as an introduction to the ongoing Office of Naval Research project in which we are designing a **fully autonomous team of robot blimps to play a game of aerial soccer**. <https://sparx.vse.gmu.edu/>



2 Scored Challenges and Schedule

12:30 PM: The initial practice round will begin with a race with all participants. The practice round will not be scored.

1:30 PM: First competition.

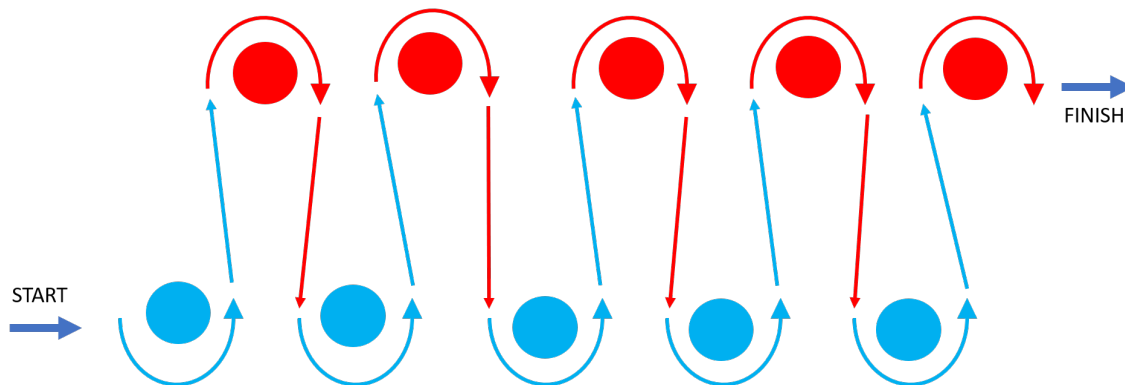
2:45 PM: Final competition.

2.1 Race to the Finish!

A straight race from one side of the room to the other. First one to touch the far wall wins. Video of our race from December 2019: <https://www.youtube.com/watch?v=e9aegtu63wk>

2.2 Obstacle Course (Slalom Race)

A time trial through an obstacle course as shown in the figure below. The fastest time wins. A penalty of 15 seconds will be added for each missed marker.



2.3 Slow and Steady wins the Race

The winner is the blimp that can make it to the finish line while staying as close to the center line as possible.



2.4 Standings

Each challenge is worth 10 points for a maximum of 30 possible points.

	Score
Rank 1	10
Rank 2	8
Rank 3	6
Rank 4	4
Rank 5	3
Rank 6	2
Rank 7	1
Rank 8	0

Contestant	Race	Obstacle	Precision	Total
Player 1				
Player 2				
Player 3				
Player 4				

3 Additional Challenges (Just for fun if there is time)

3.1 Head-to-head tag

Two rounds of tag will be played with each blimp playing once as **pursuer** and once as **evader**. The blimp who can 'tag' the other blimp faster is the winner.

3.2 One-on-One Hoops

First to 3 goals wins, similar to one-on-one basketball.