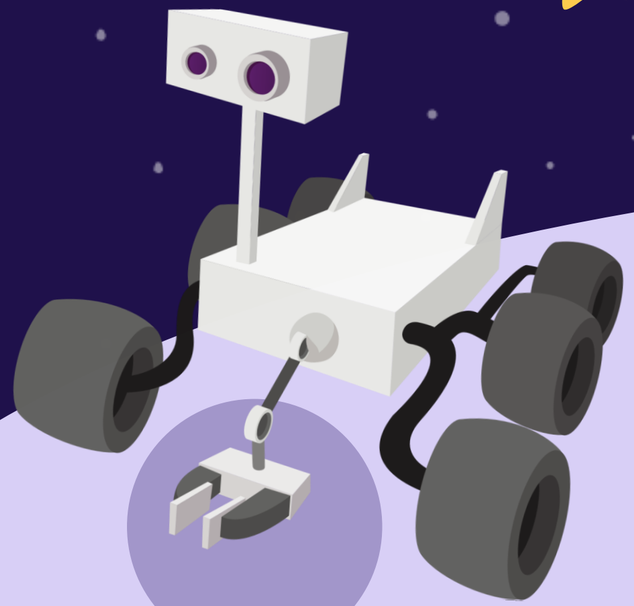
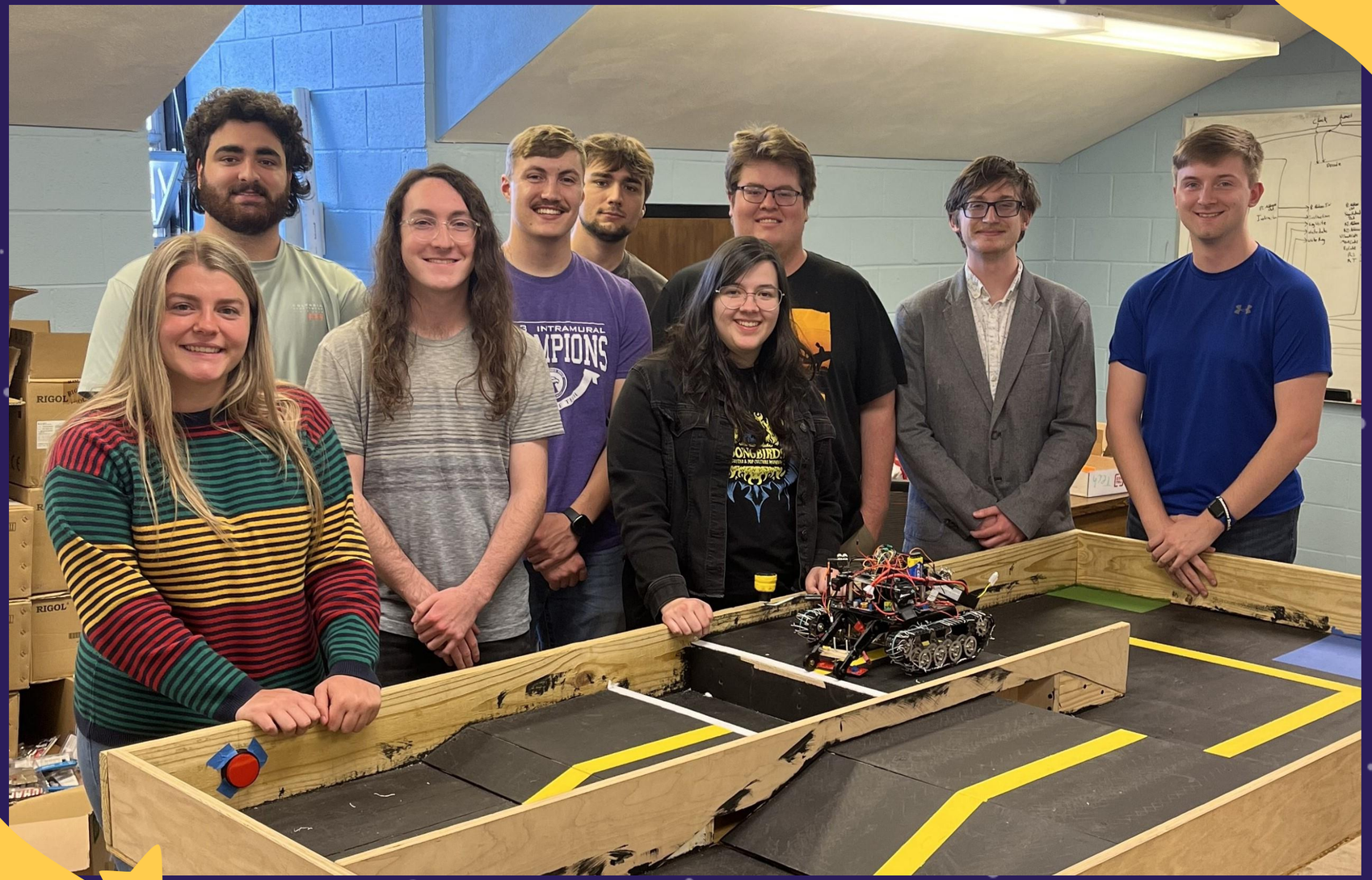
IEEE SECON ROBOT



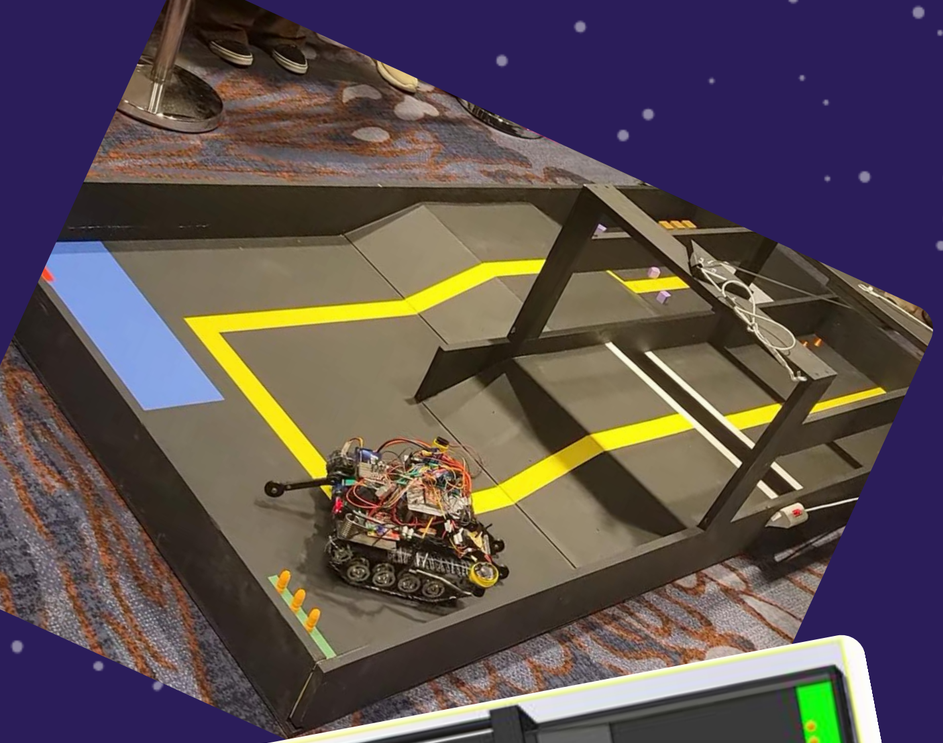
Team 1:

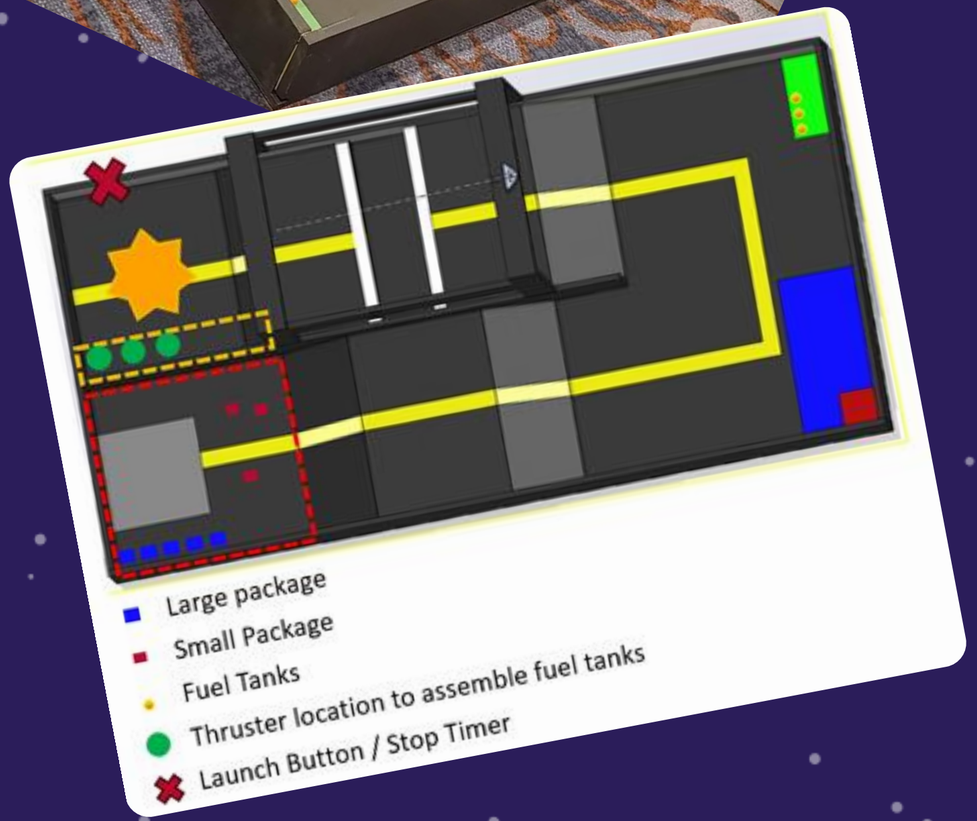
Callie Battenfield, Caz Bilbrey, Liam Counasse, Adrin Jackson, & Conor Orr

OUR TEAM



THE PROBLEM





Build a Robot!

Climb Hills

Cross Craters

Crush Boxes

DEMONSTRATION

STANDARDS & REGULATIONS

Competition Requirements:

- Autonomy
- Weight
- Size
- Safety

Standards and Considerations:

- Economic Impact
- Environmental Impact
- Industry Standards

PROJECT DESIGN

Push Button

- Deployment time
- Press button

Spirit Display

- Visibility
- Dynamic Display

Navigate

- Follow the yellow line
- Sensors distance to line

Self Start

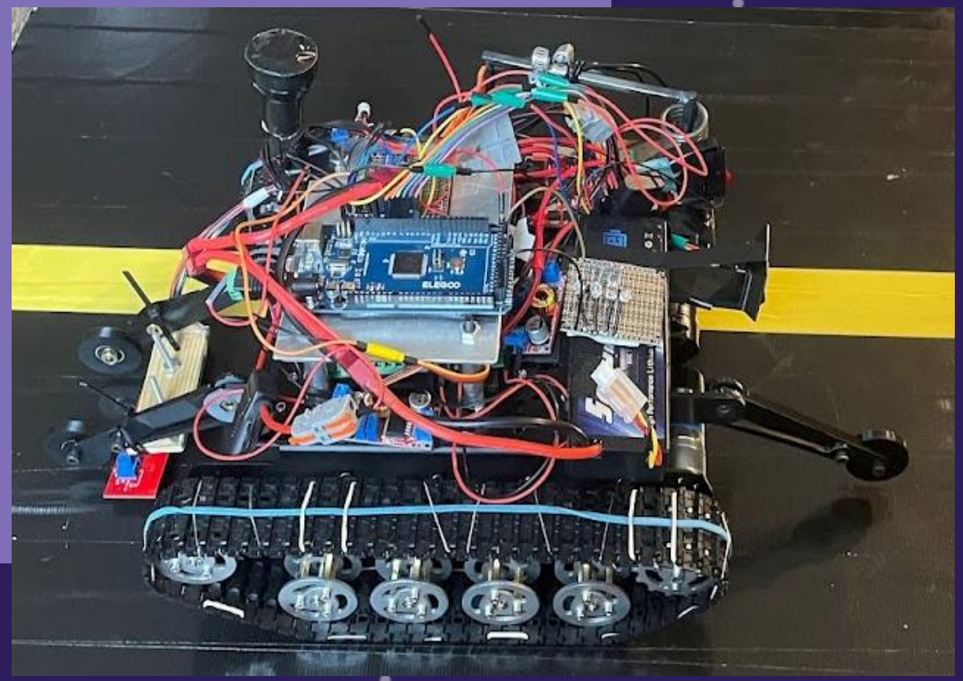
- Detect Green
- Distance to Light

Cross Crater

- Don't get stuck!
- Stay on line

IMPLEMENTATION

- Start Sensor & Shroud
- Weight Distribution & Wheelie Bars
- Sensor Scraping
- Paint roller arm
- Brownouts
- Software
  - Modularity
  - Safety Timers



IMPLEMENTATION

- Start Sensor & Shroud
- Weight Distribution & Wheelie Bars
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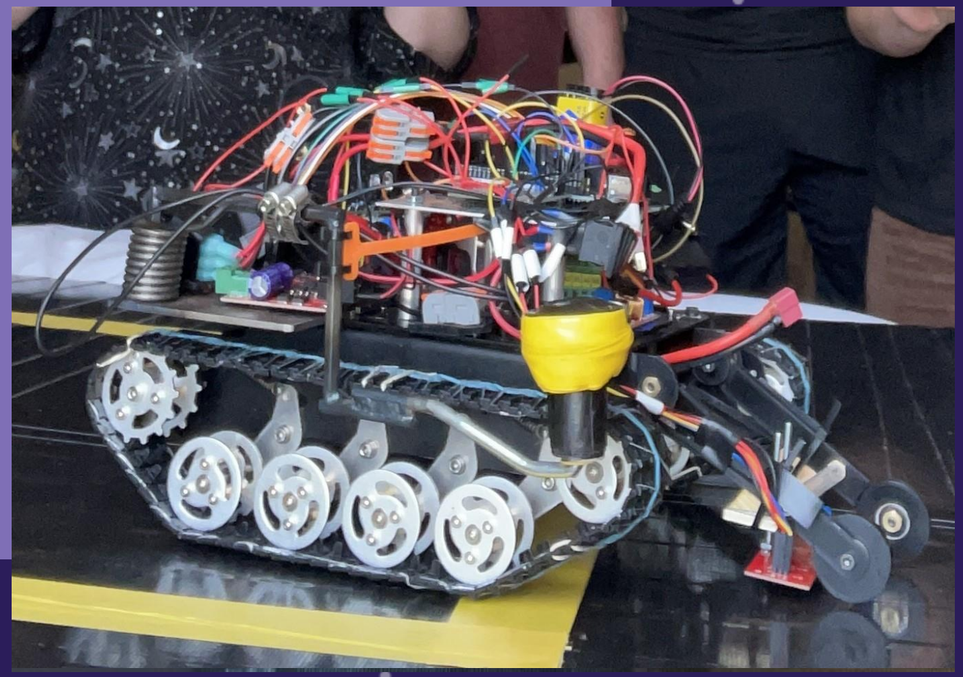
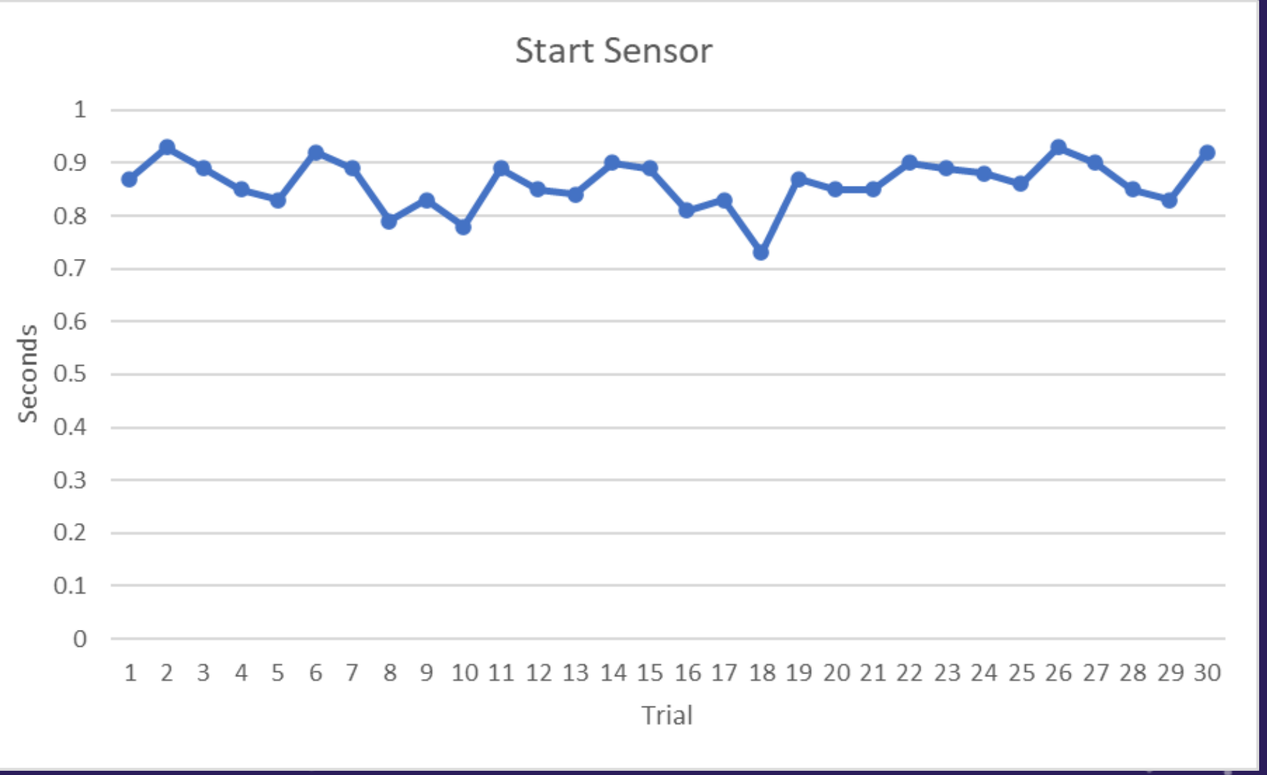
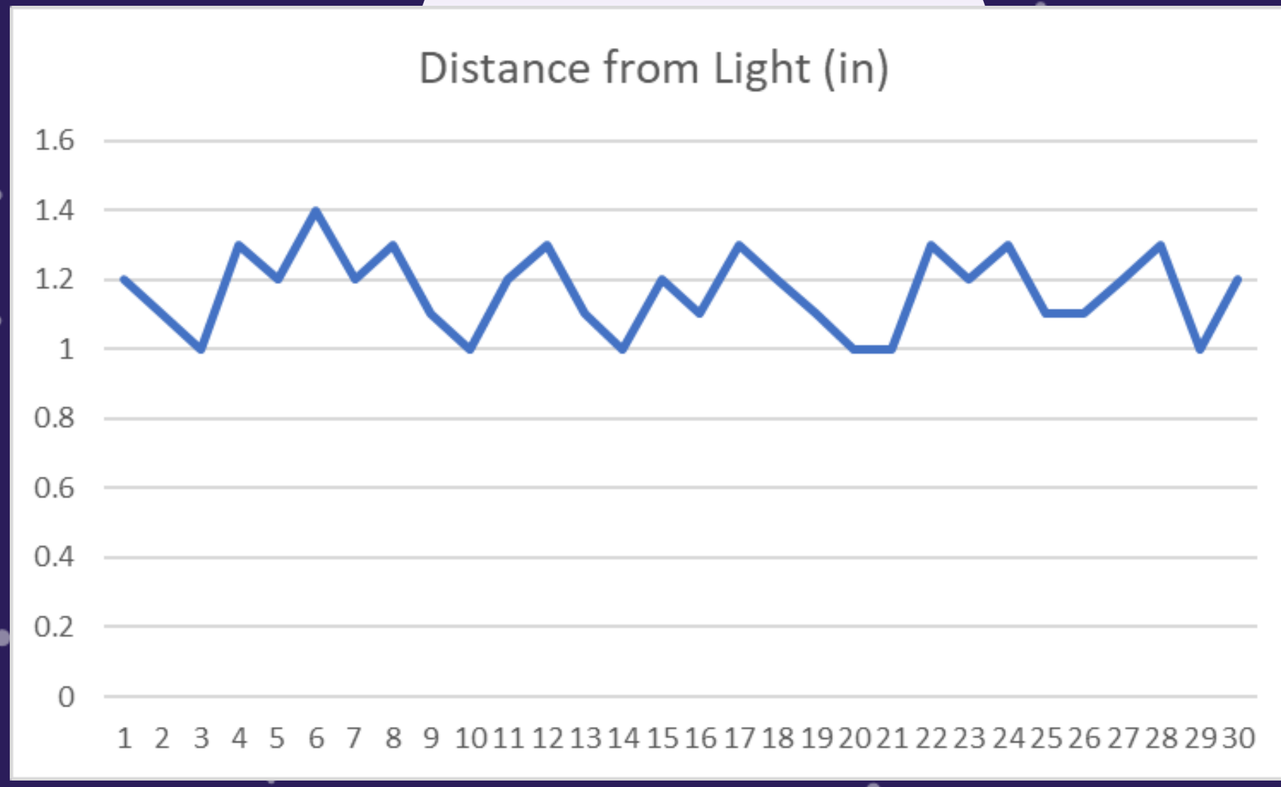


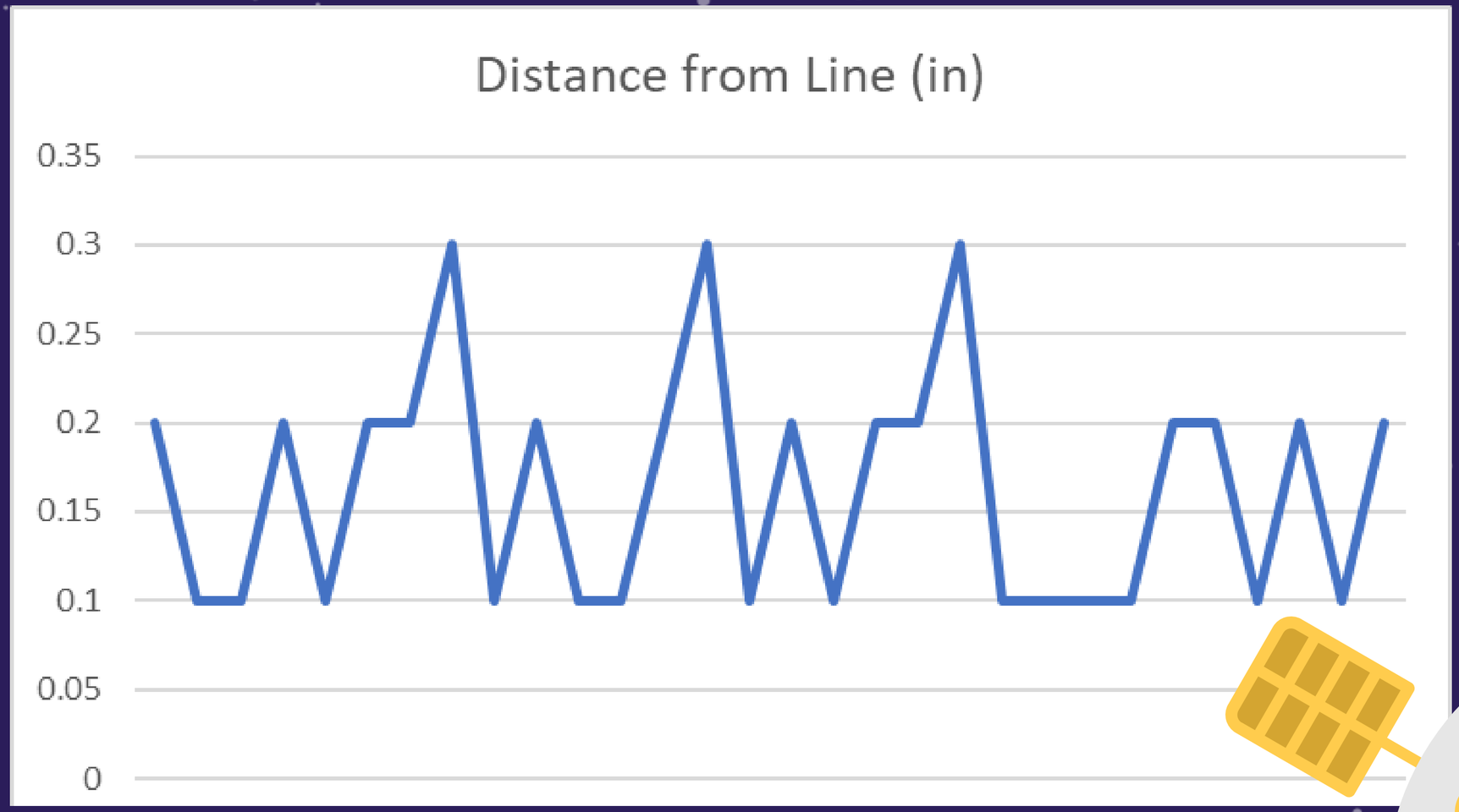
EXPERIMENTATION

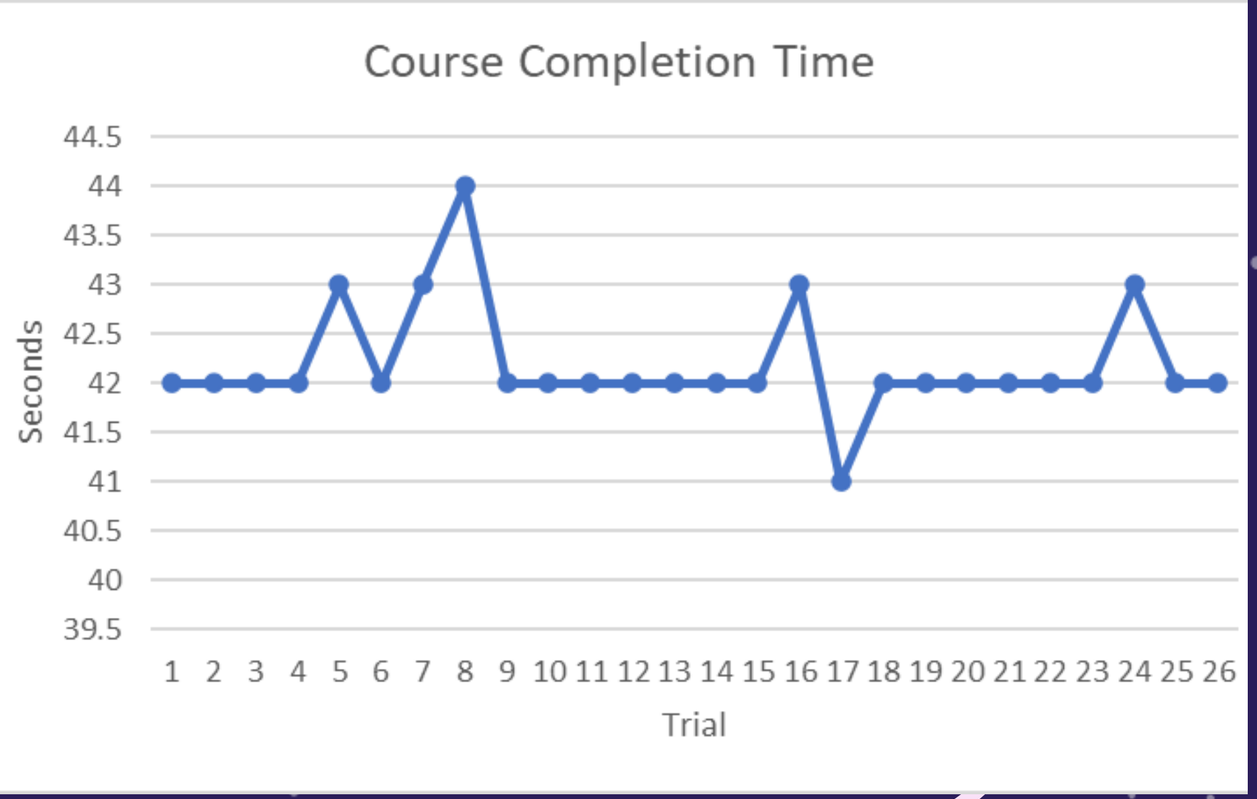


START SENSOR

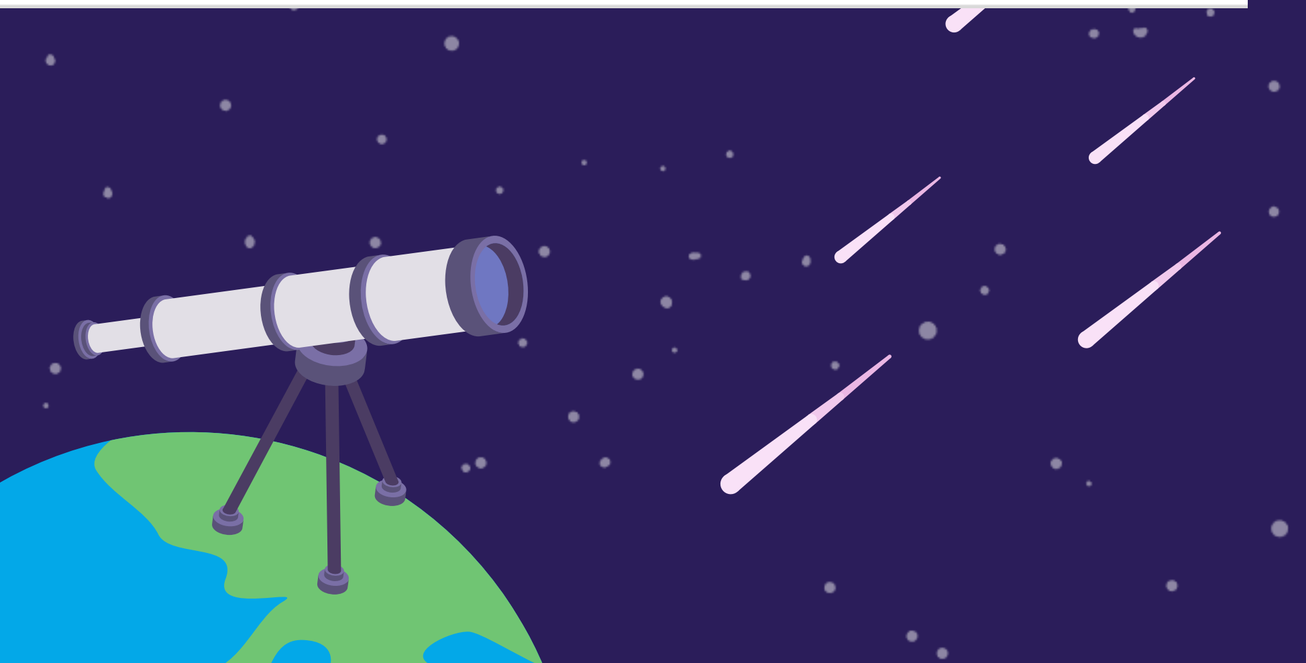


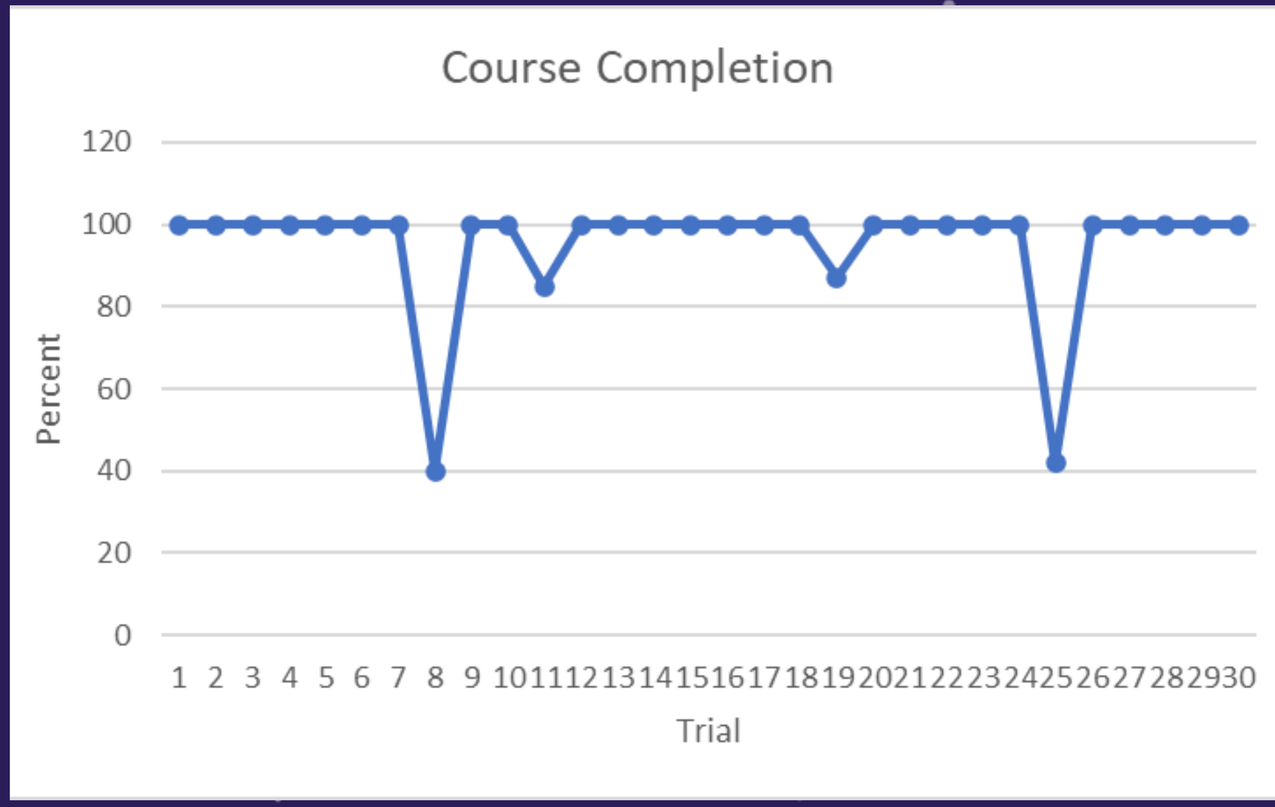
NAVIGATION



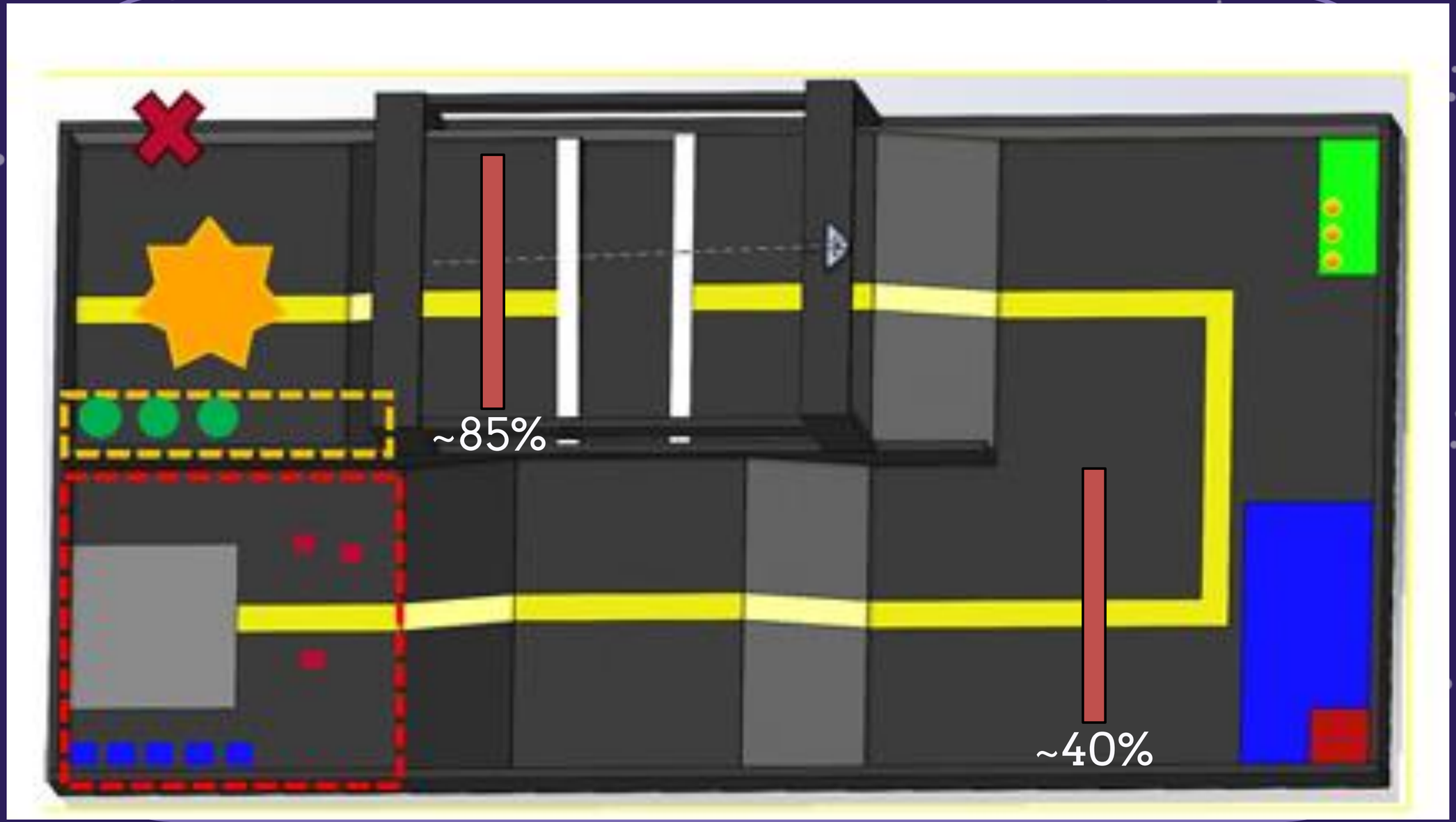


MAIN CONTROL

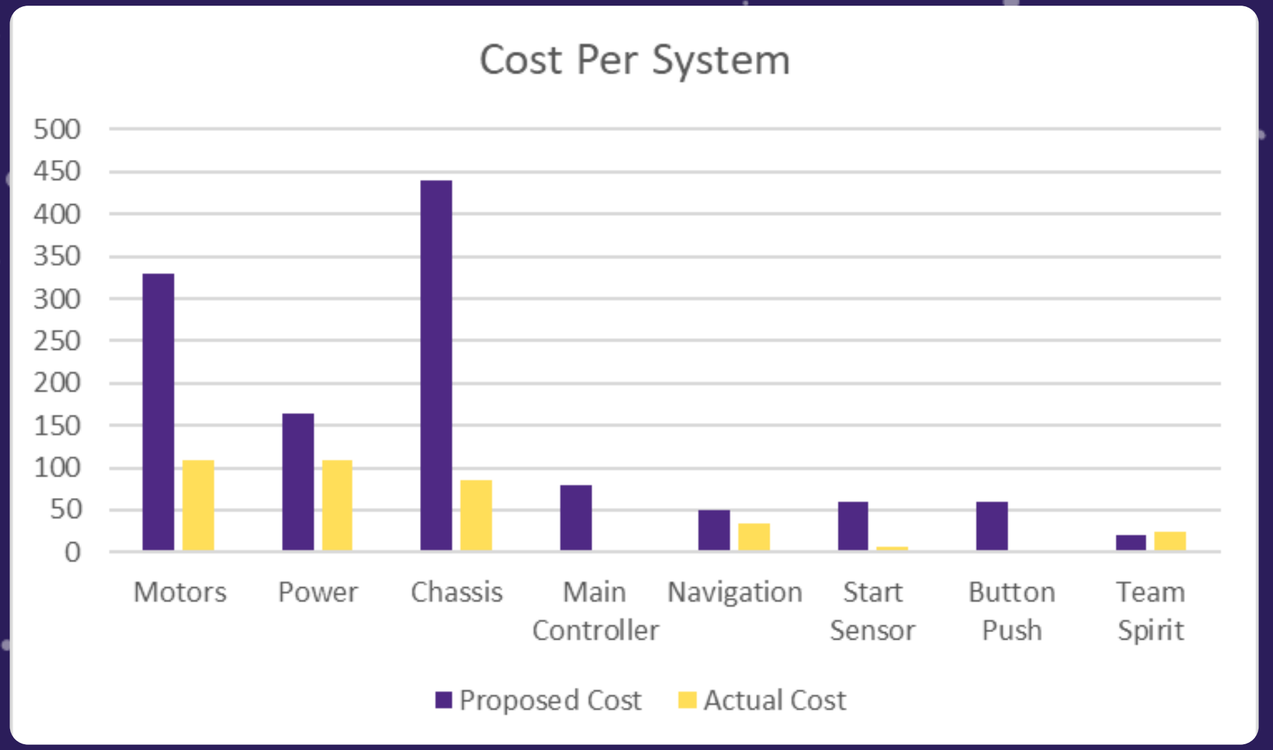


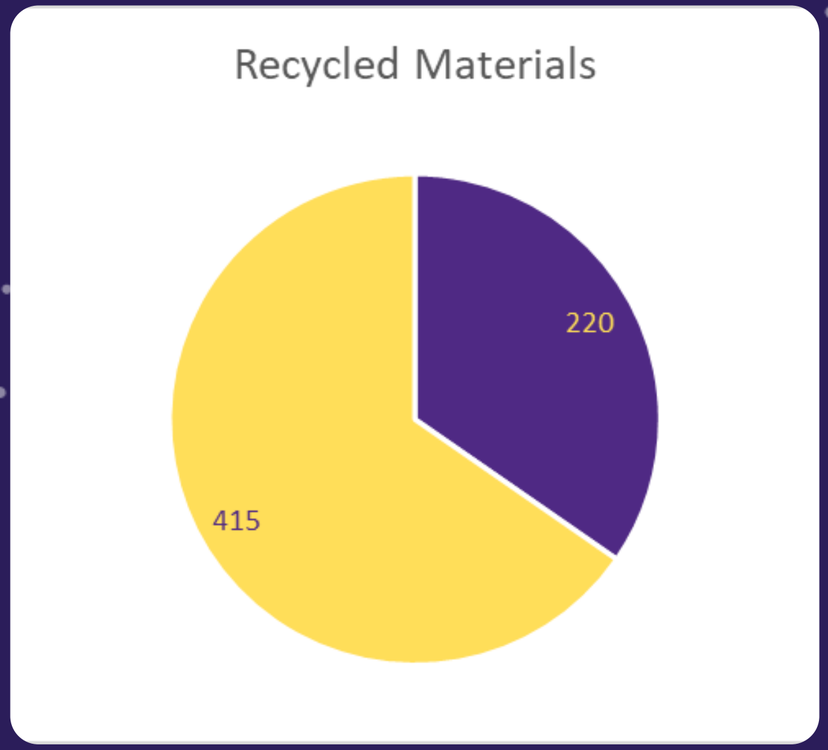


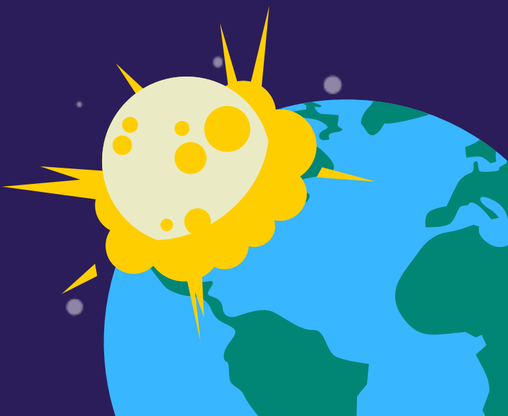
The Course

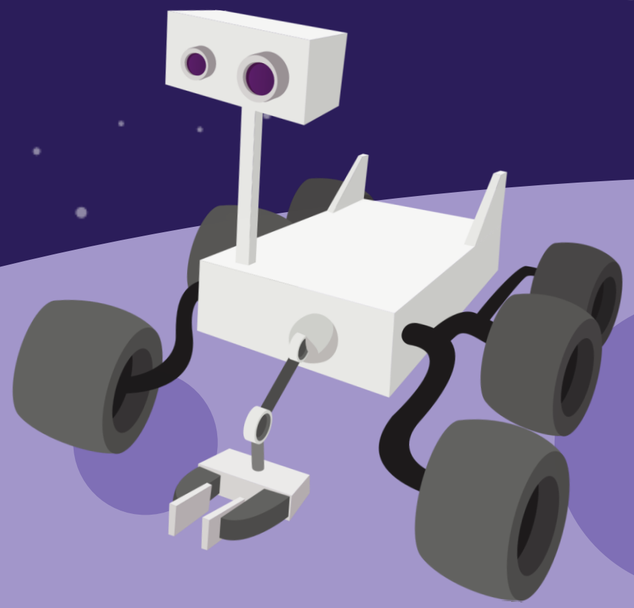


BUDGET


Cost Per System
500
450
400
350
300
250
200
150
100
50
0
Motors
Power
Chassis
Main Controller
Navigation
Start Sensor
Button Push
Team Spirit
Proposed Cost
Actual Cost


Recycled Materials
220
415



THANK YOU!

Do you have any questions?