

Progress Check I

Blue Team

Marauder Cart

Blue Team

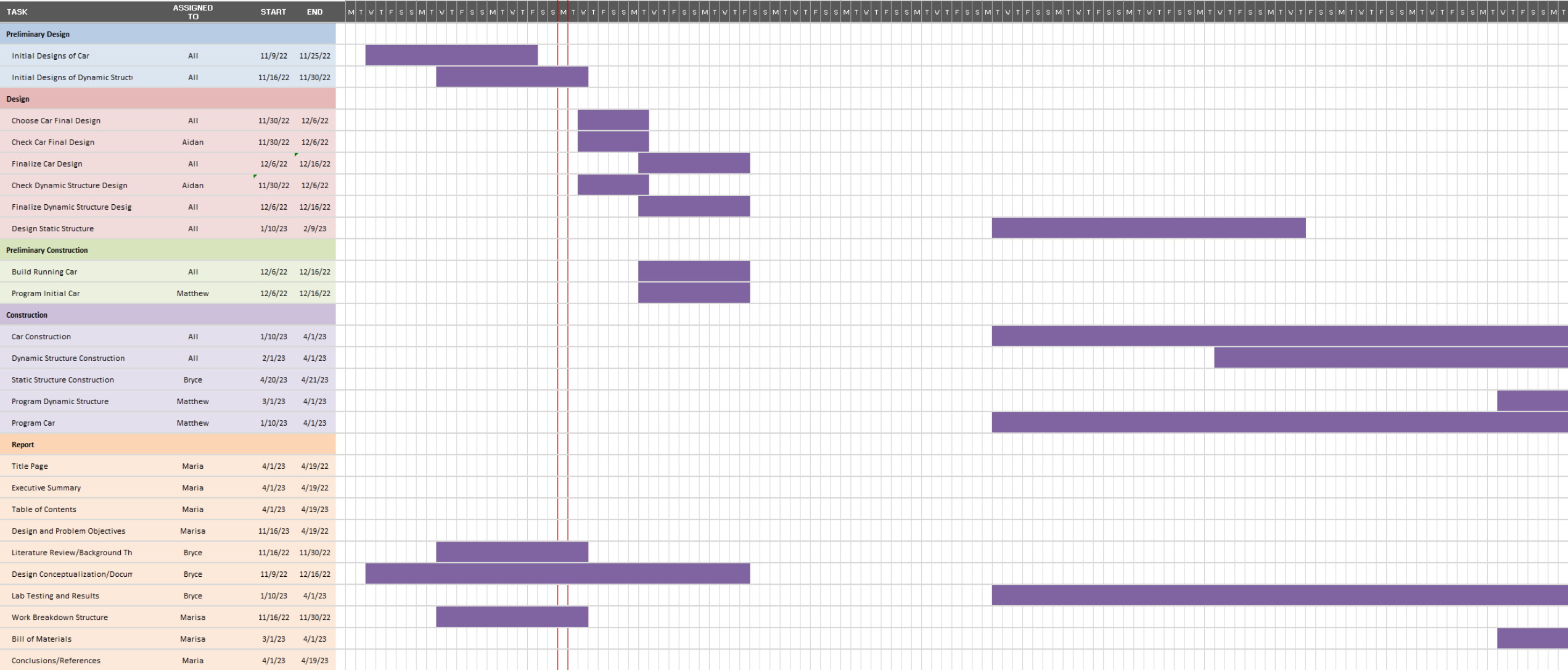
Maria Medina, Aidan Spaeth,
Bryce Leafgren, Matthew Izzo,
Marisa Shiland

Project Start:

Wed, 11/9/2022

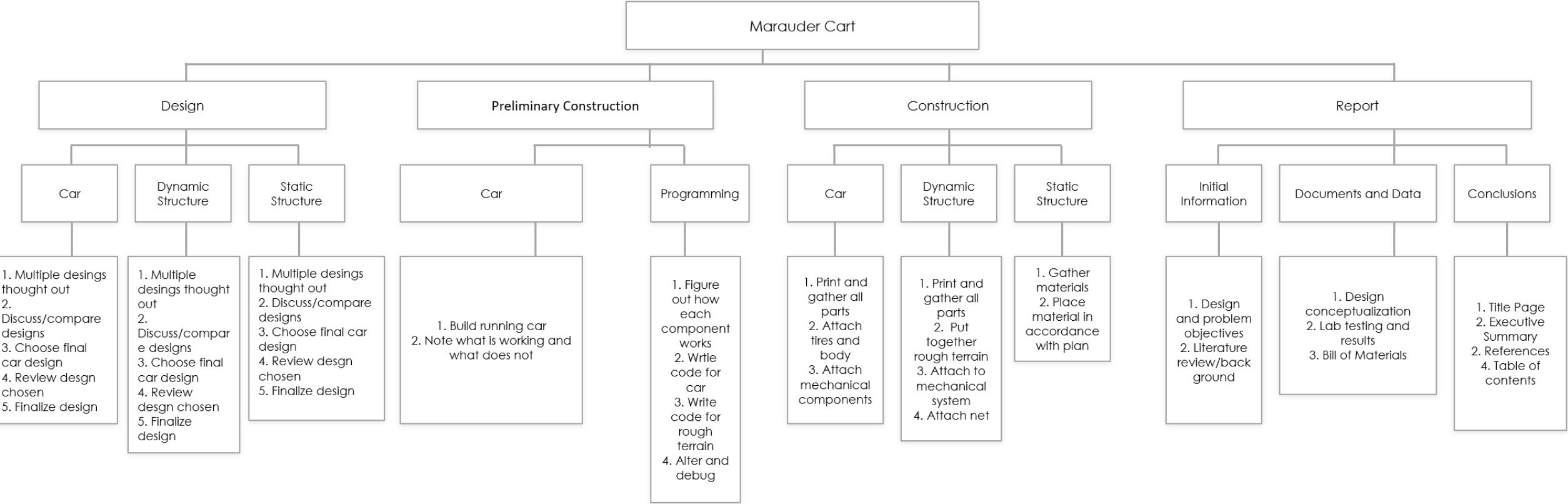
Display Week:

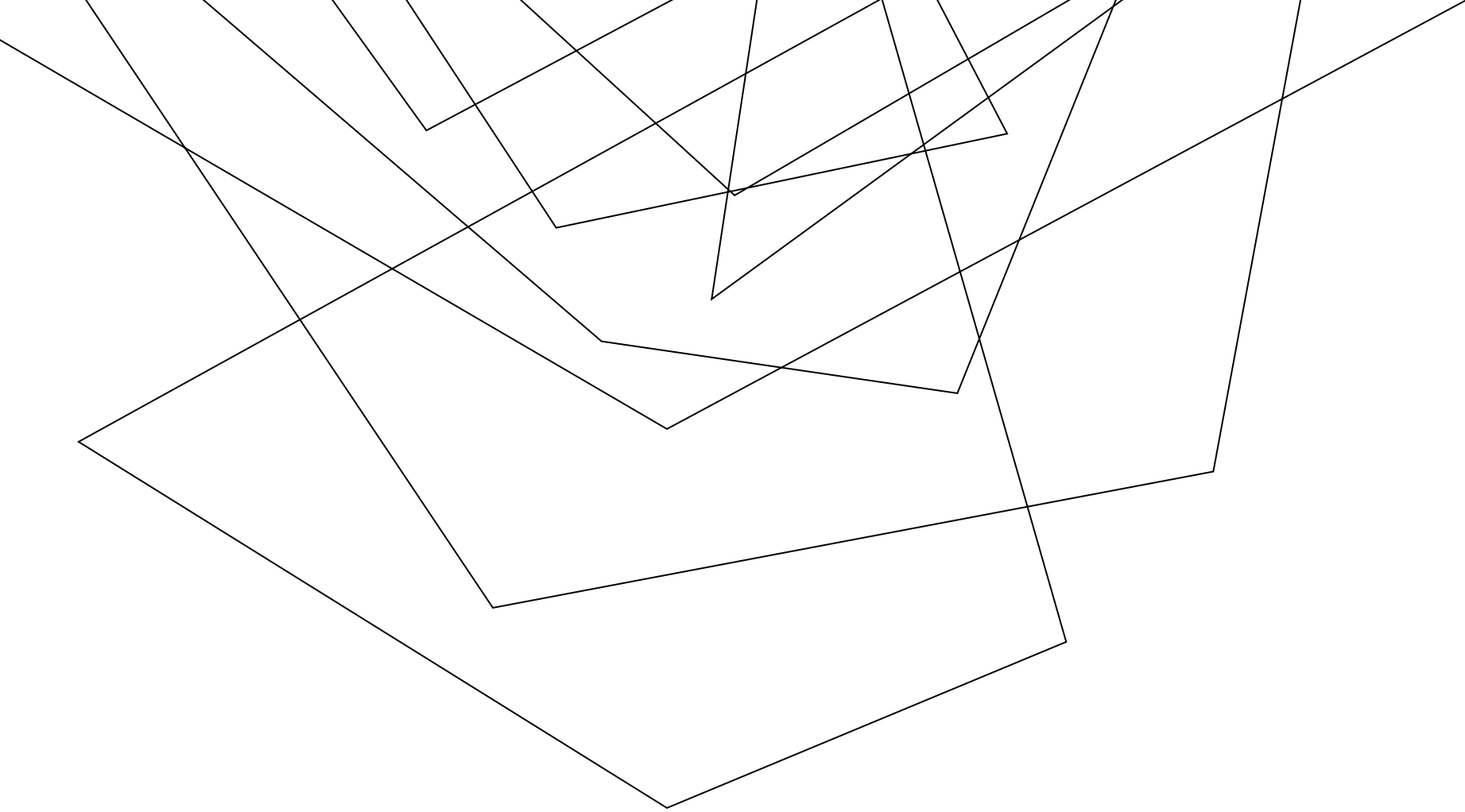
1



WORK BREAKDOWN STRUCTURE

PROJECT TITLE	Marauder Cart	COMPANY NAME	Blue Team
TEAM MEMBERS	Marisa, Maria, Bryce, Aidan, Matththew	DATE	Monday, November 28, 2022





Specifications

RC CAR

- Camera
- Rough terrain expertise
- Maintain average speed rather than have a jaw dropping max speed
- Zero point turning

A large blue geometric shape, consisting of a rectangle and a triangle, occupies the left side of the slide. A thin black diagonal line runs from the top-left towards the bottom-right, passing through the blue area.

DYNAMIC STRUCTURE

- Rough Terrain
- Alternative Route for failure
- Dump vehicles that cannot make it over the terrain.

BACKGROUND INFORMATION

RC Car

1. High ground clearance
 - Body won't hit tall rocks
 - Apply underbody protection for rough terrain
2. Tank Tracks
 - More traction than standard wheels; instead of traction in 4 smaller places tank treads provide traction along the entirety of its track
 - More surface area for the tracks to grip
 - Distribute the weight of the vehicle over a larger contact area, decreasing ground pressure
 - Much more torque to the ground without slipping

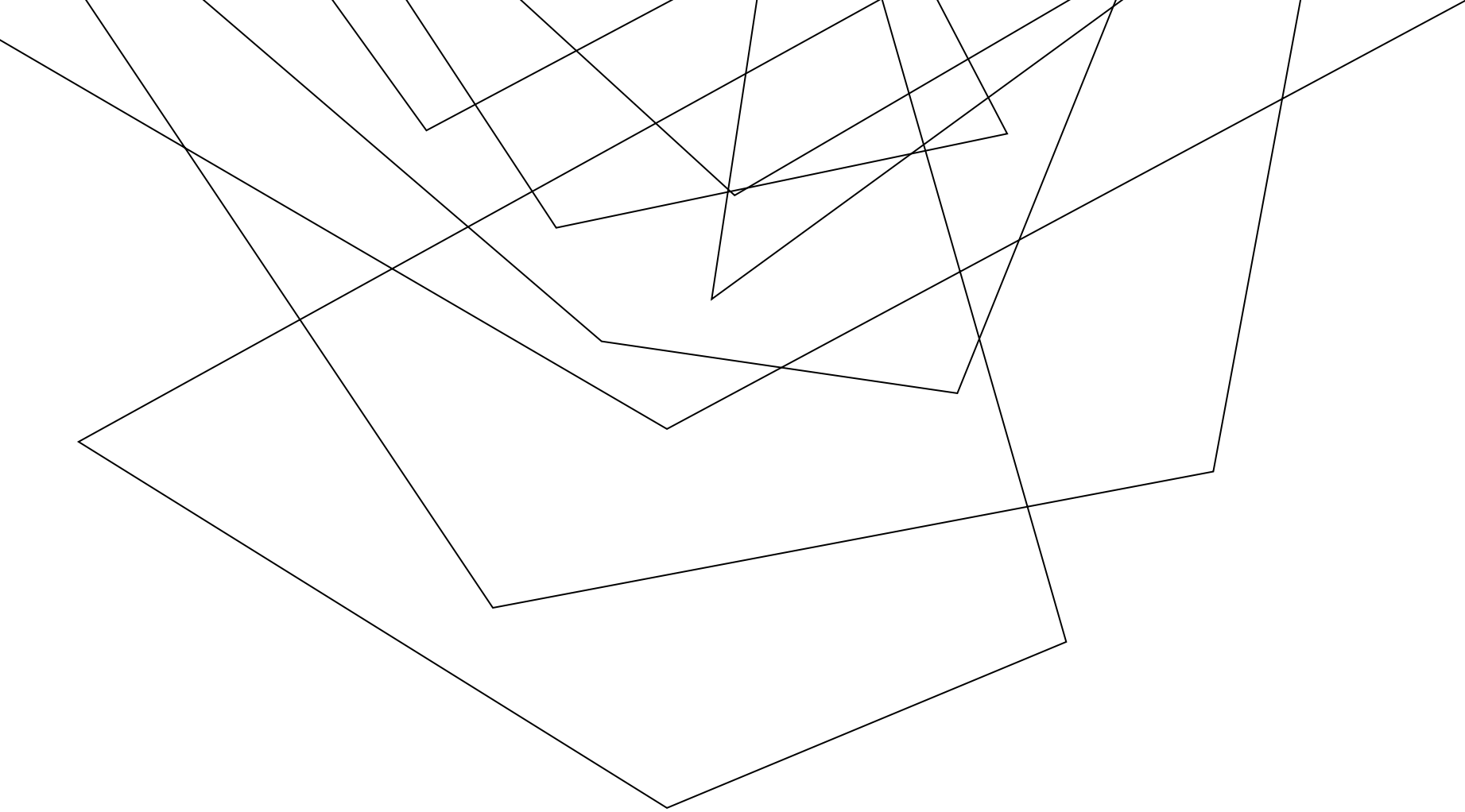


Software Progress

Communication between HC-12 modules established.

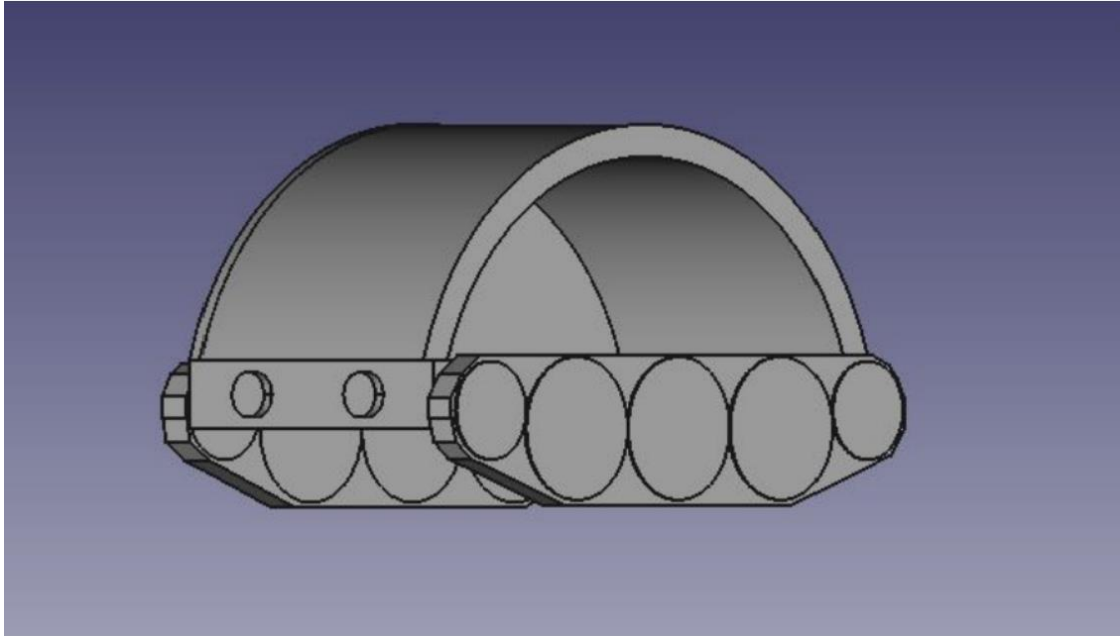
Serial monitor data conversion: in progress.

Initial motor controller software functioning.



INITIAL DESIGNS

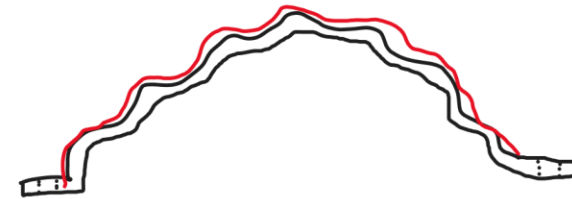
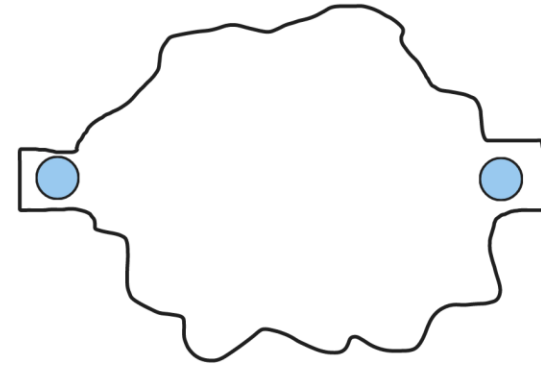
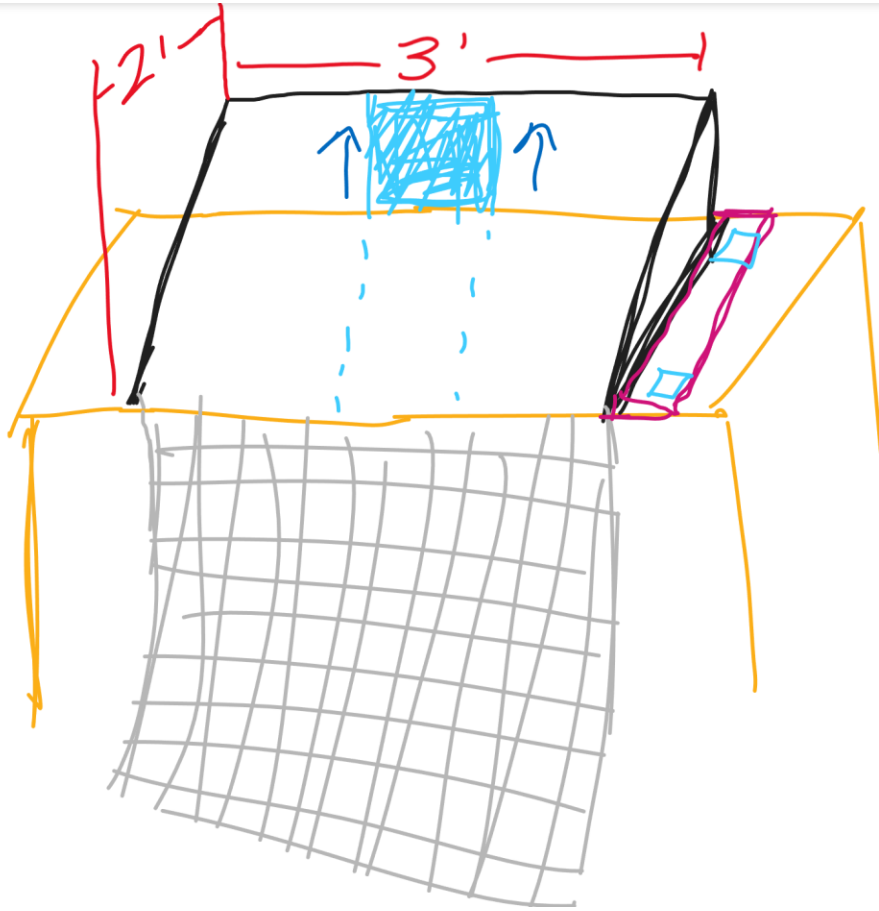
RC CAR INITIAL DESIGNS



Alternatives:

1. 4 wheels instead of tank tracks

ROUGH TERRAIN INITIAL DESIGN



REPORT PROGRESS

- Design Problems and Objectives
- Design Specifications
- Literature Review