

UCSB
HYPER
LOP

Final Presentation
June 8, 2018

Meet the Hyperloop CE Team

Introduction

Competition Rules

Pod Overview

Peripheral Layout

Printed Circuit
Board

Web App

Prototype

Our Sponsors

Team Lead



Cameron Bijan

PCB Lead



Dylan Vanmali

Prototype Lead



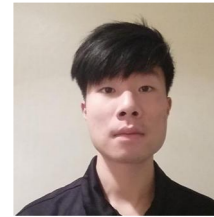
Alex Jun

Test Engineer



David Donaldson

Software Engineer



Mark
Wu

SpaceX Hyperloop Competition

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Concept proposed by Elon
Musk

Pod in low-pressure tube from
LA to SF



Competition to explore
functioning prototypes

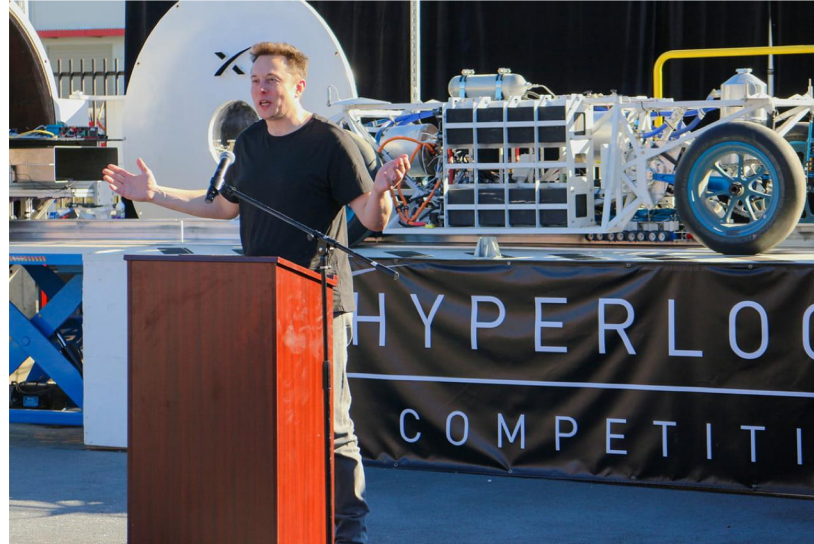
2018 Levitation Competition

There-and-back race on
outdoor test track

Pod must **levitate** for
entire duration of run

Fastest pod wins!

5 foot minimum pod length



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UCSB Hyperloop Pod Design

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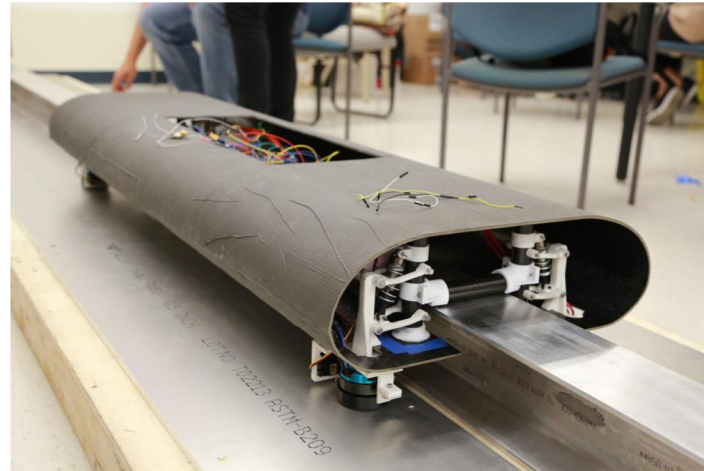
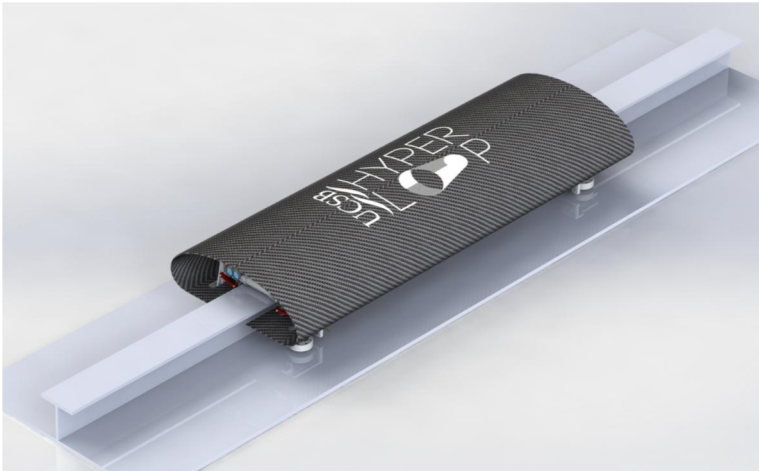
Peripheral Layout

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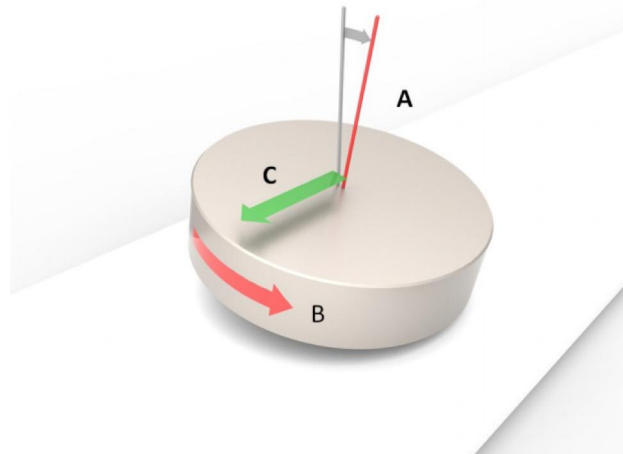
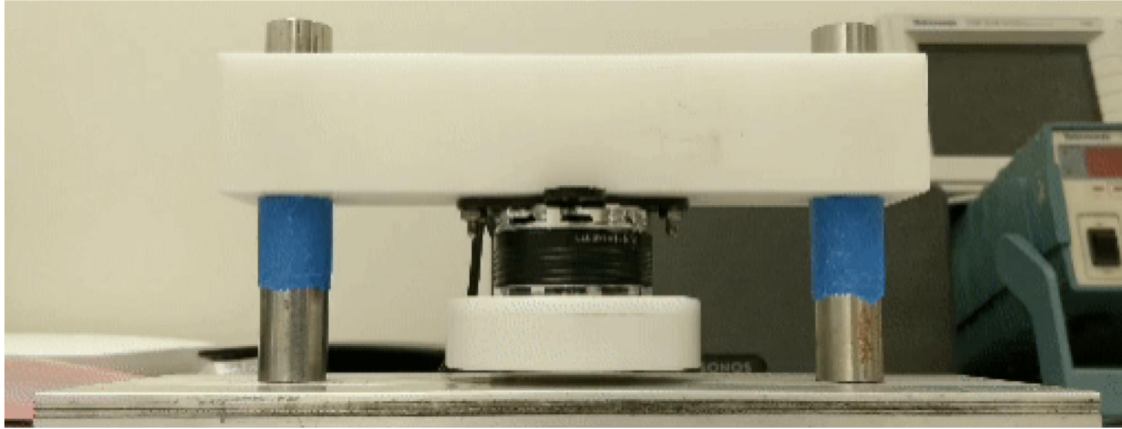
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MagLev Overview



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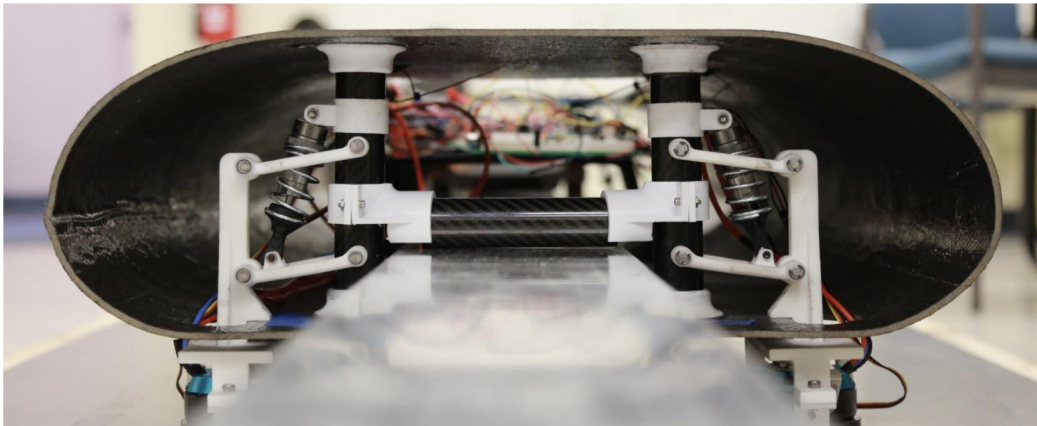
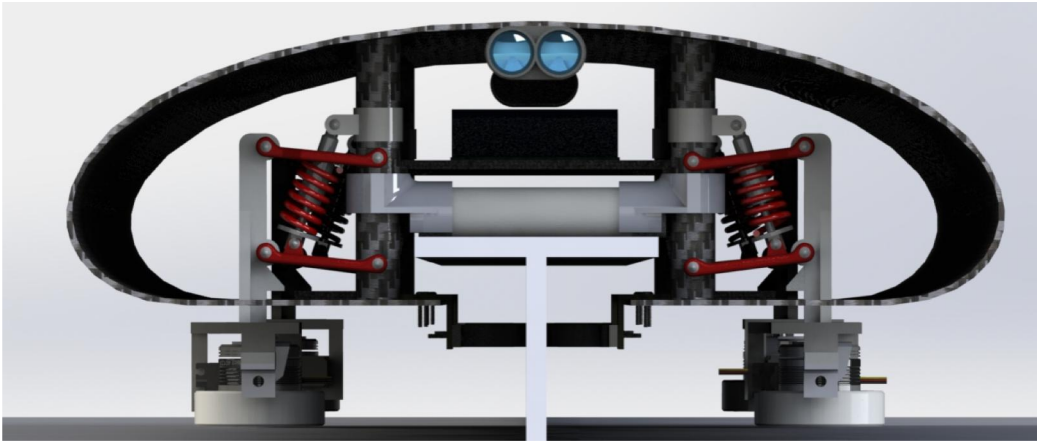
Printed Circuit
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Secondary Braking



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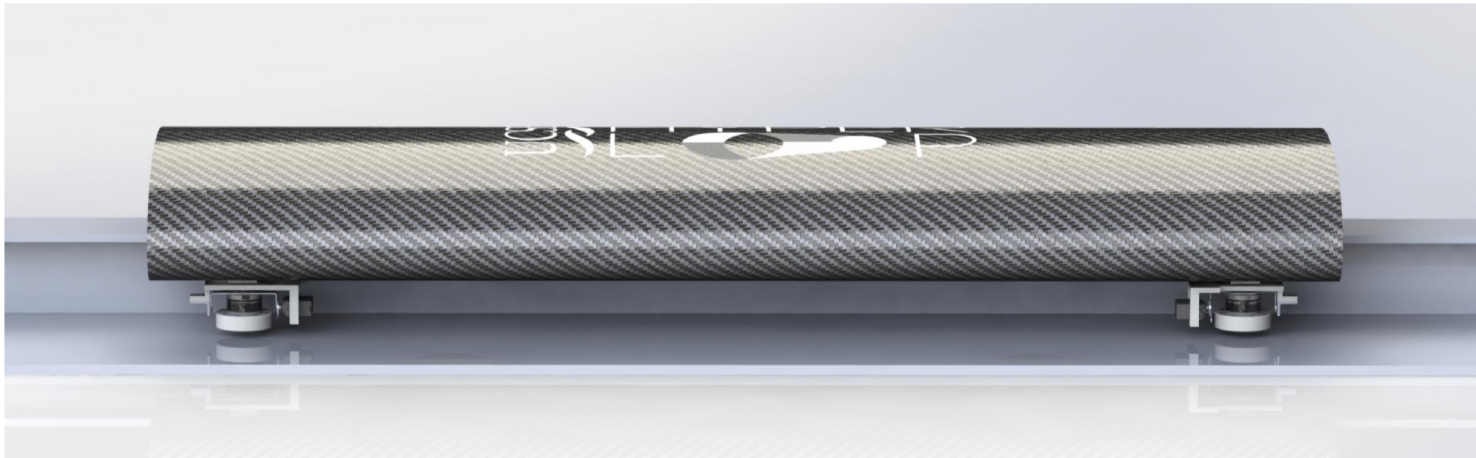
Peripheral Layout

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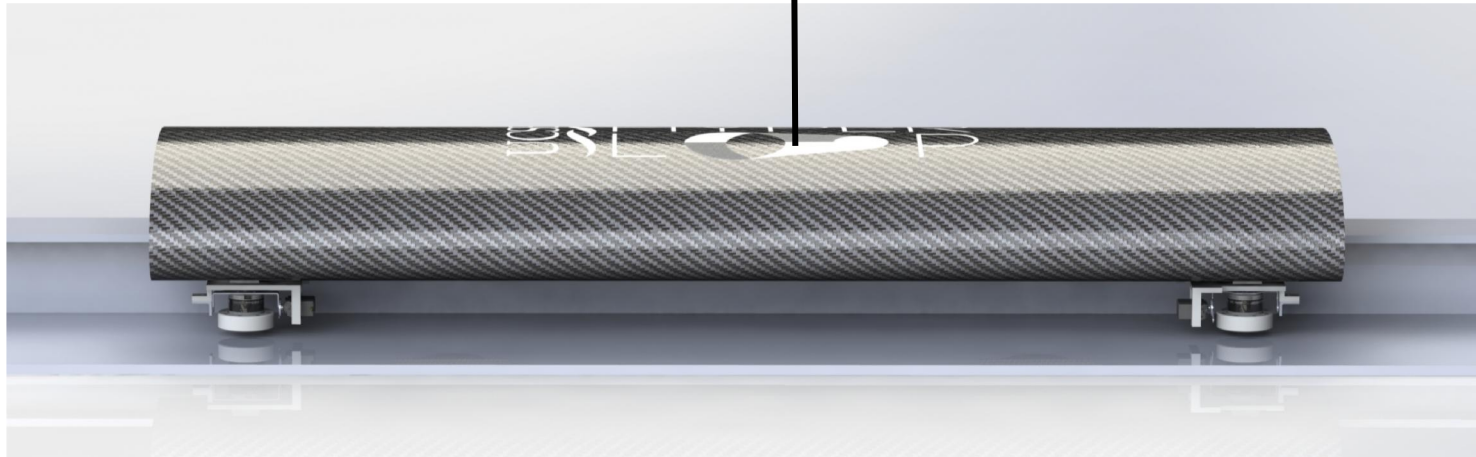
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Printed Circuit Board

PCB



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Power Source

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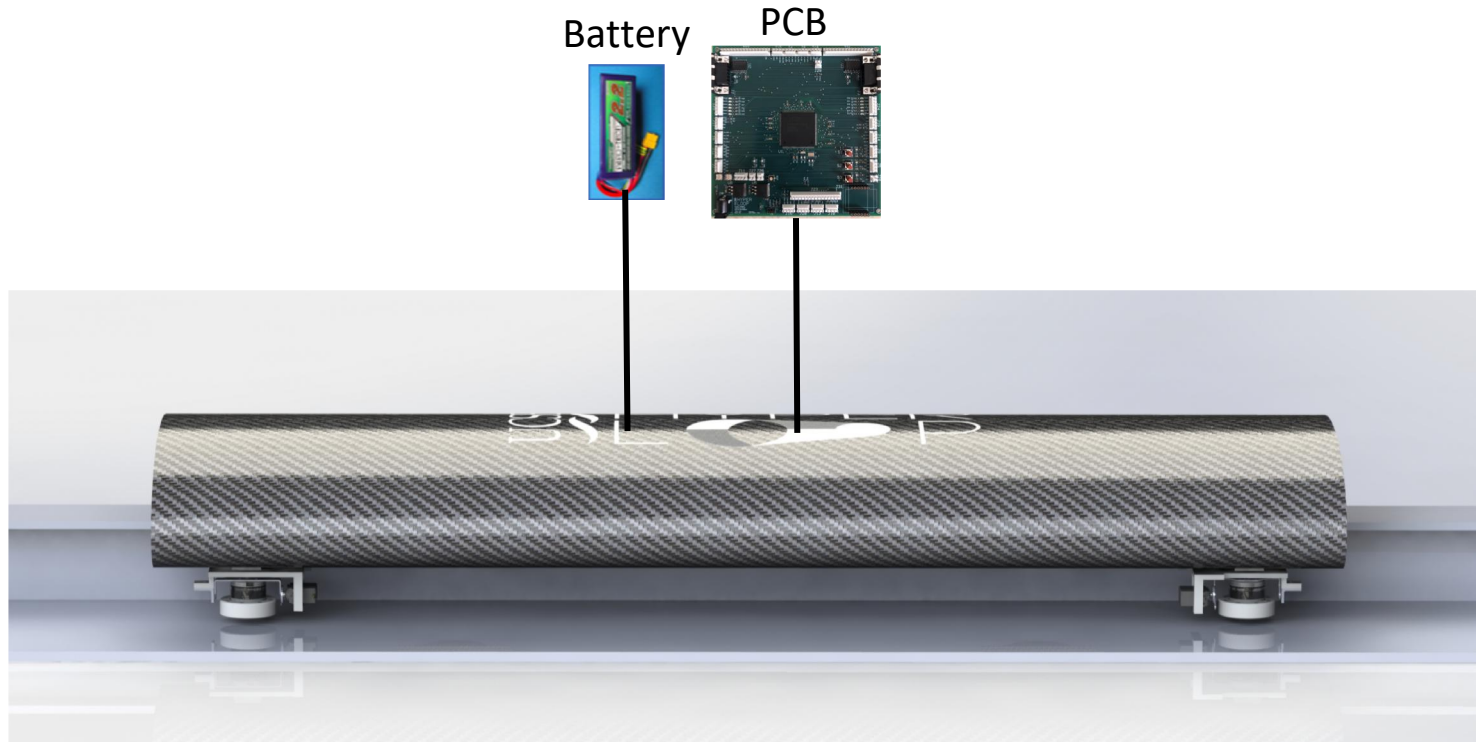
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Electronic Speed Controller

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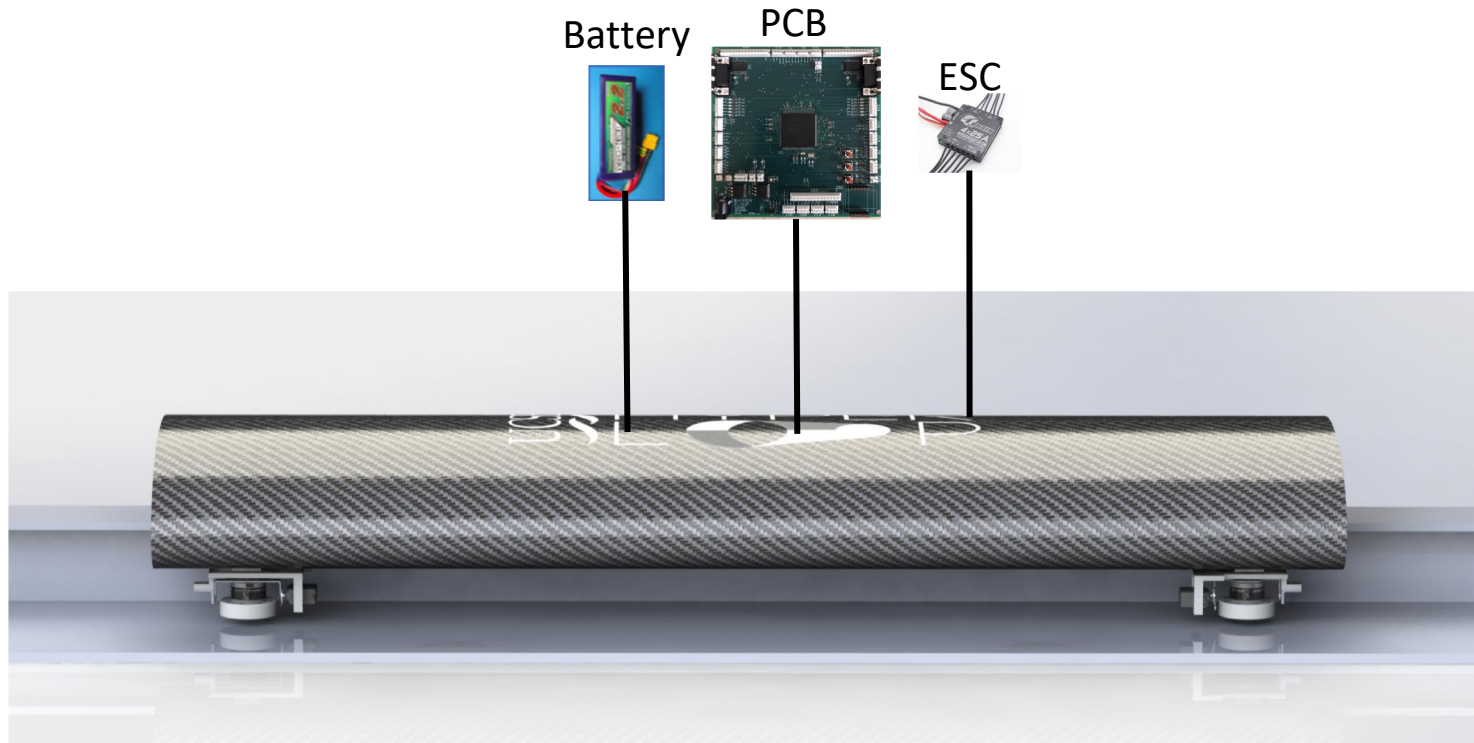
Peripheral Layout

Printed Circuit Board

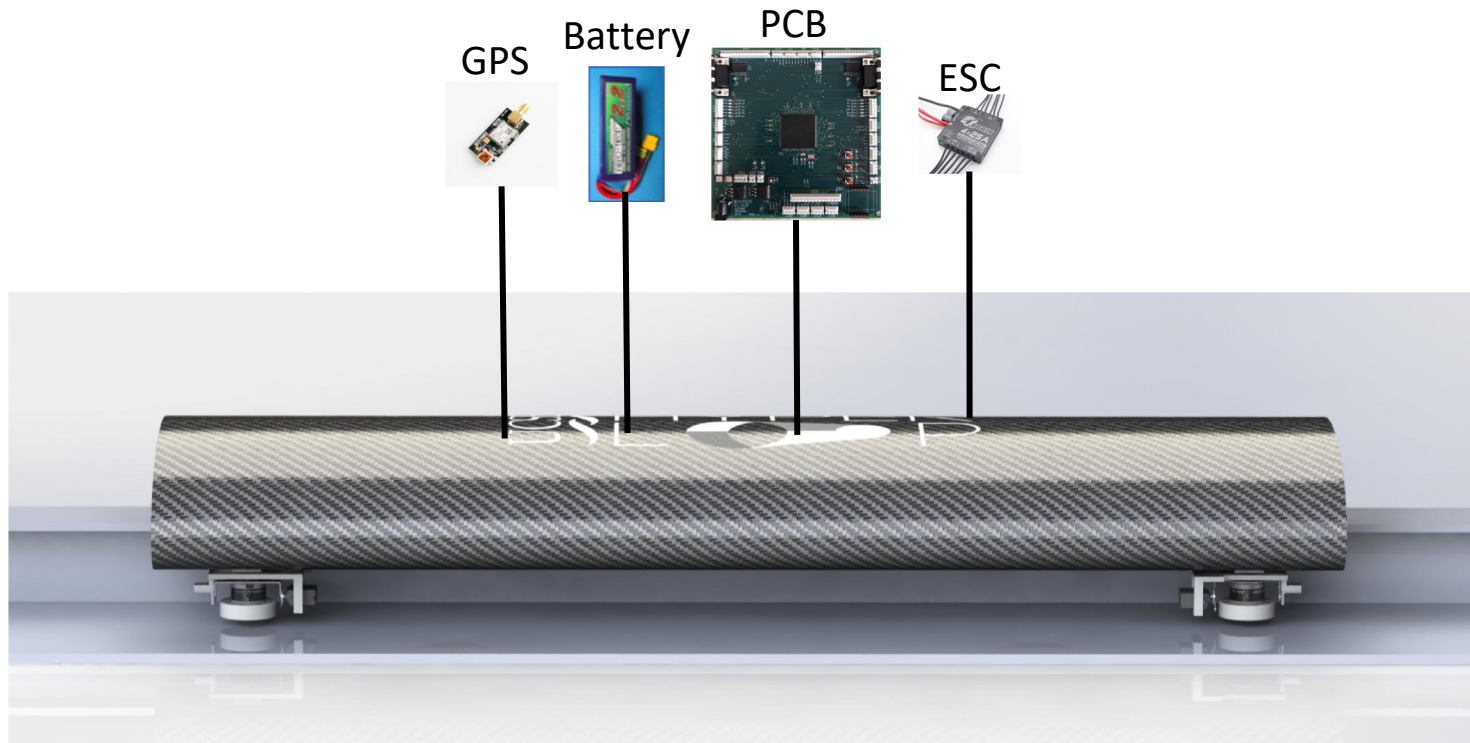
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Global Positioning System



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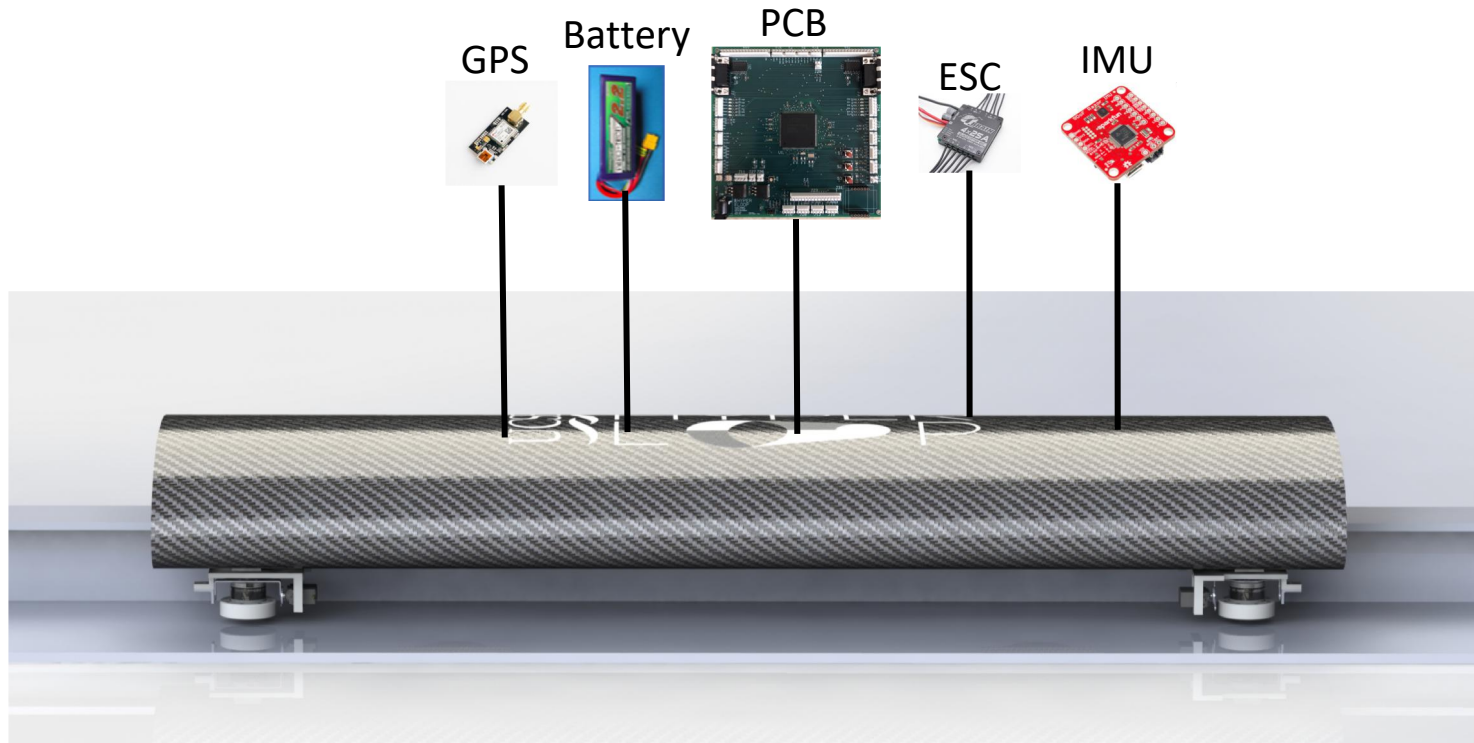
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Inertial Measurement Unit



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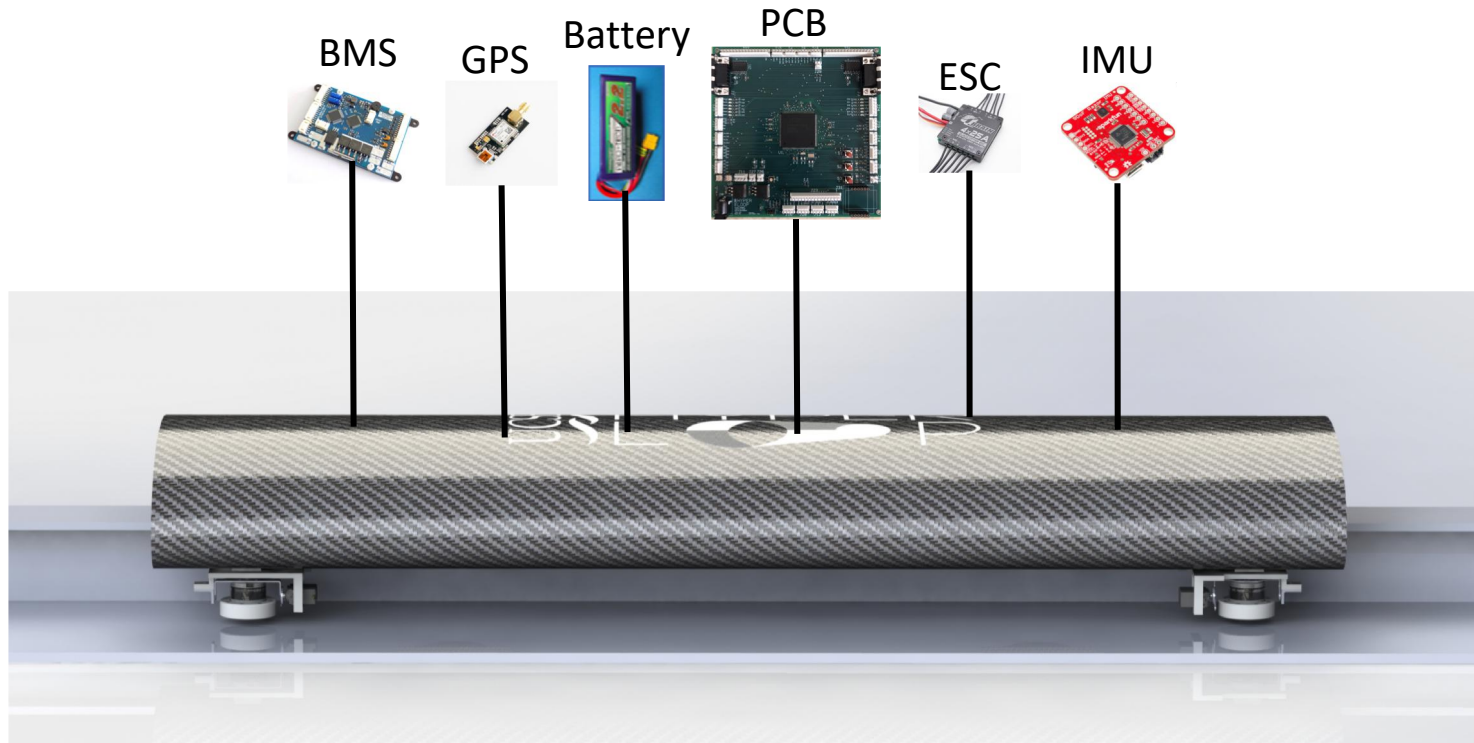
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Battery Management System



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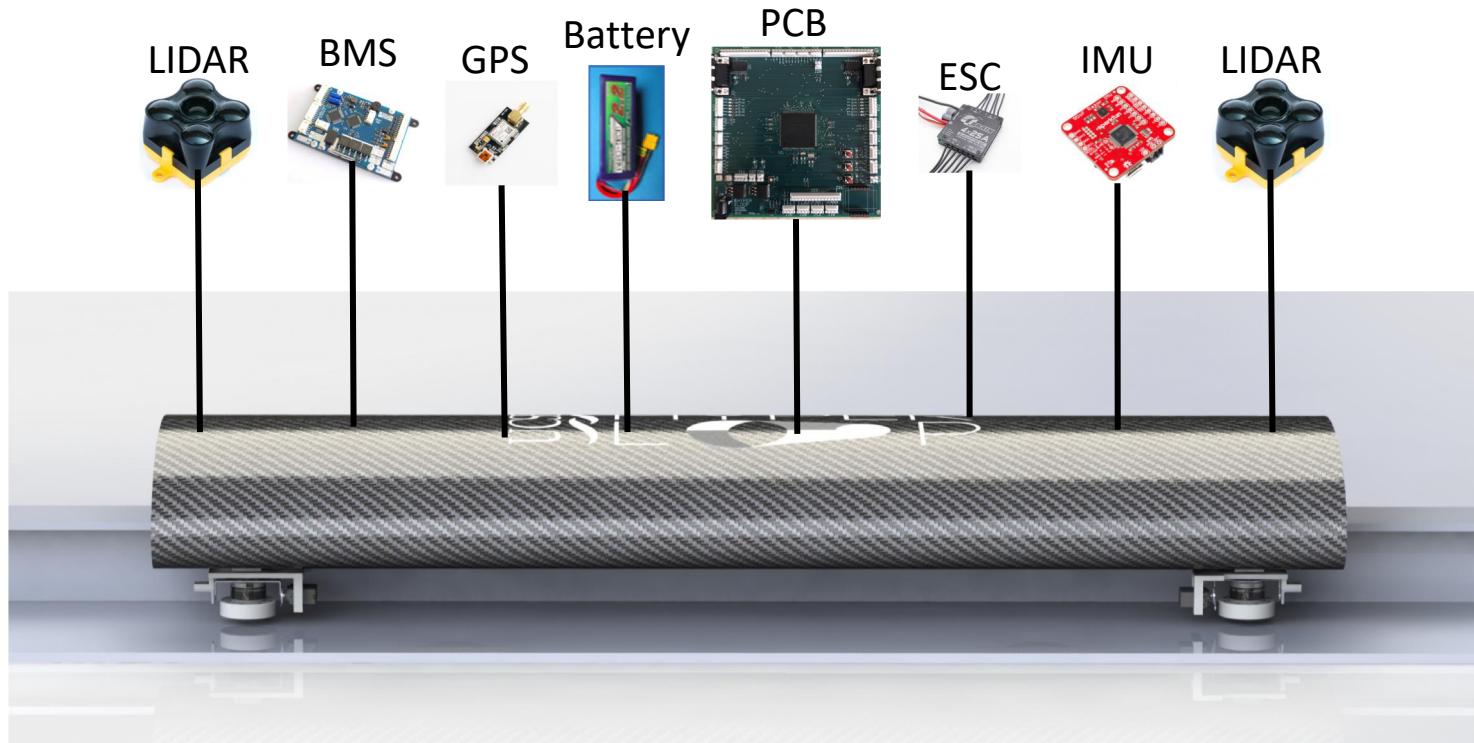
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Lidar Sensors



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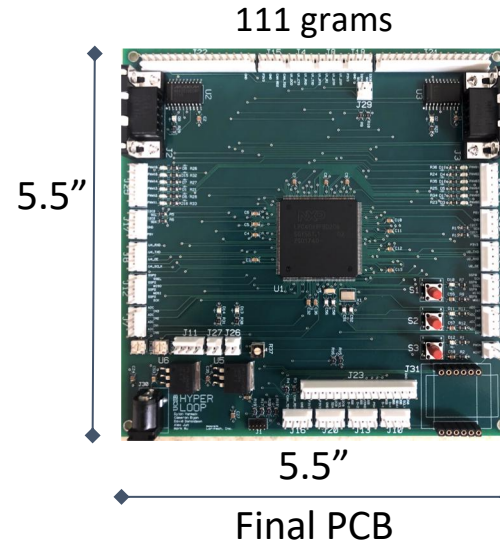
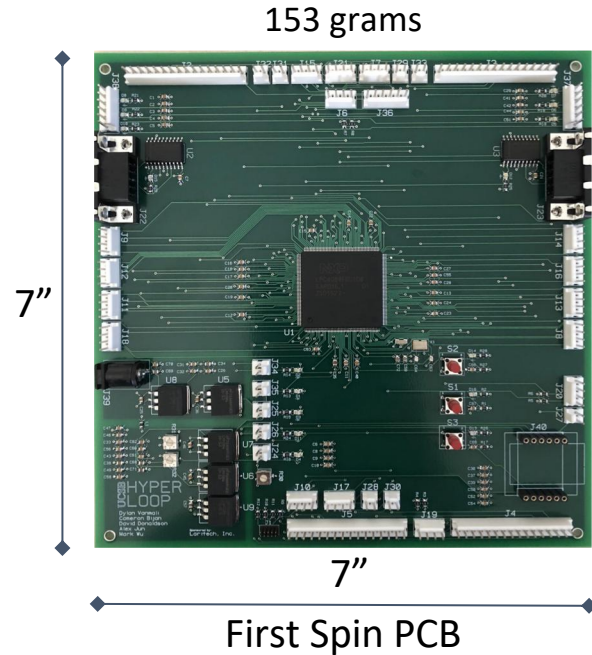
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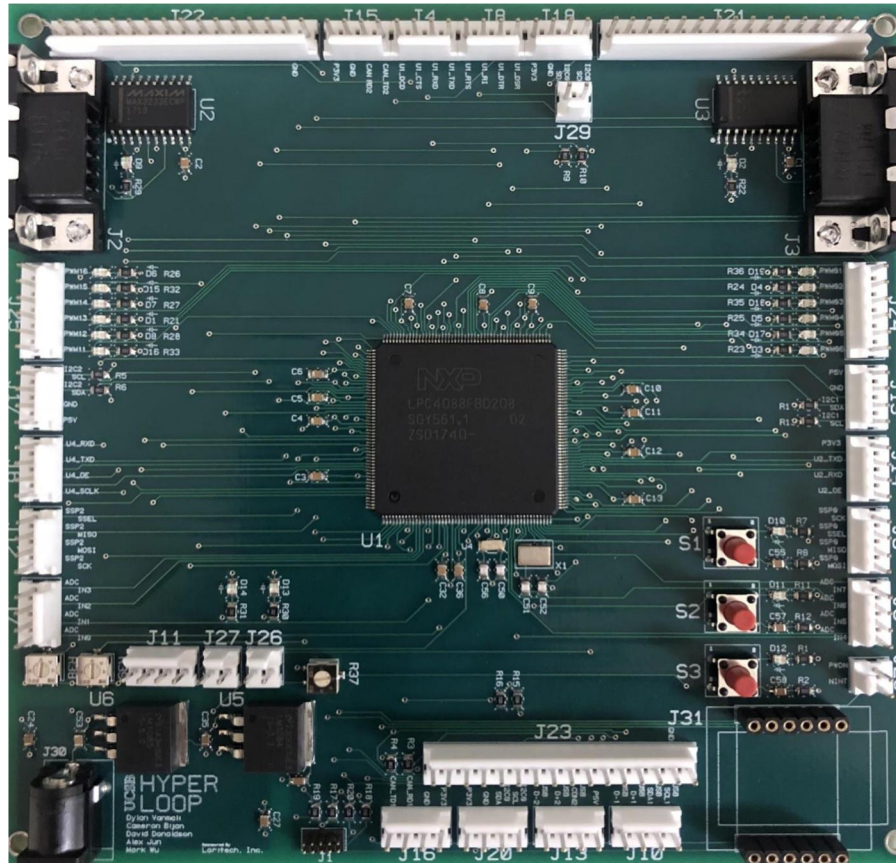
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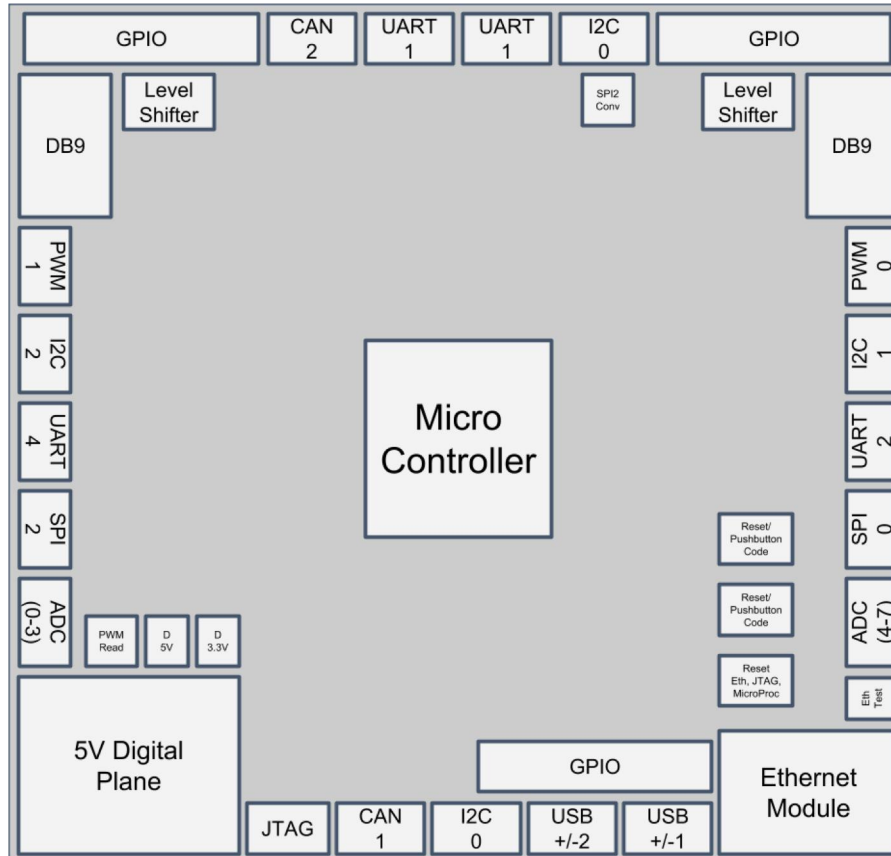
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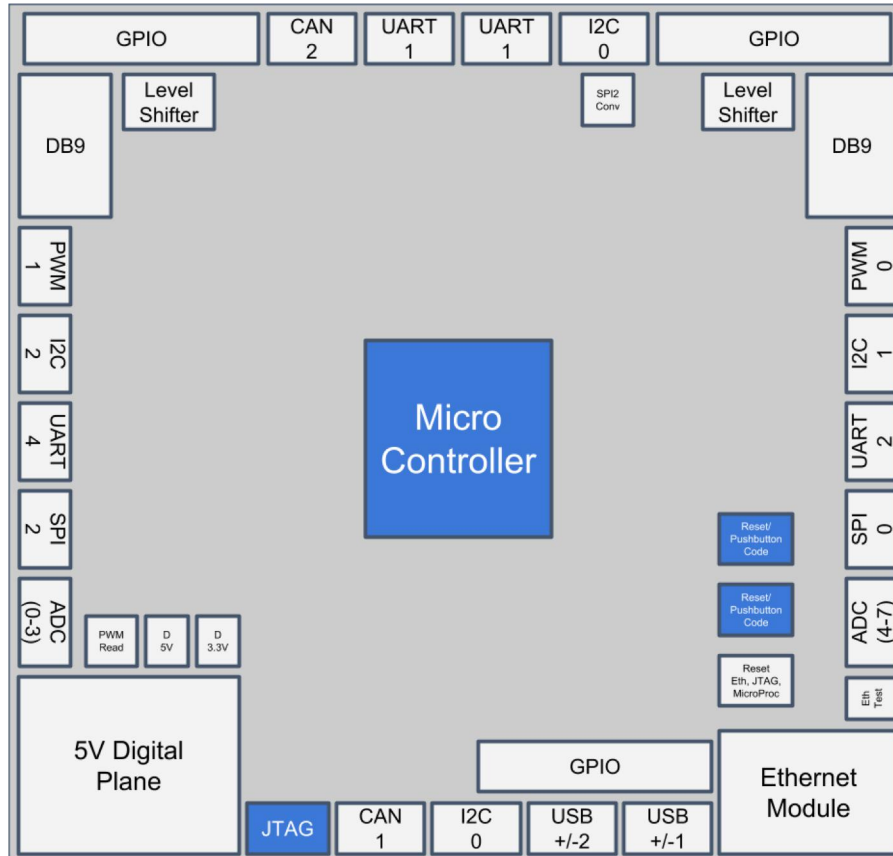
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Computing



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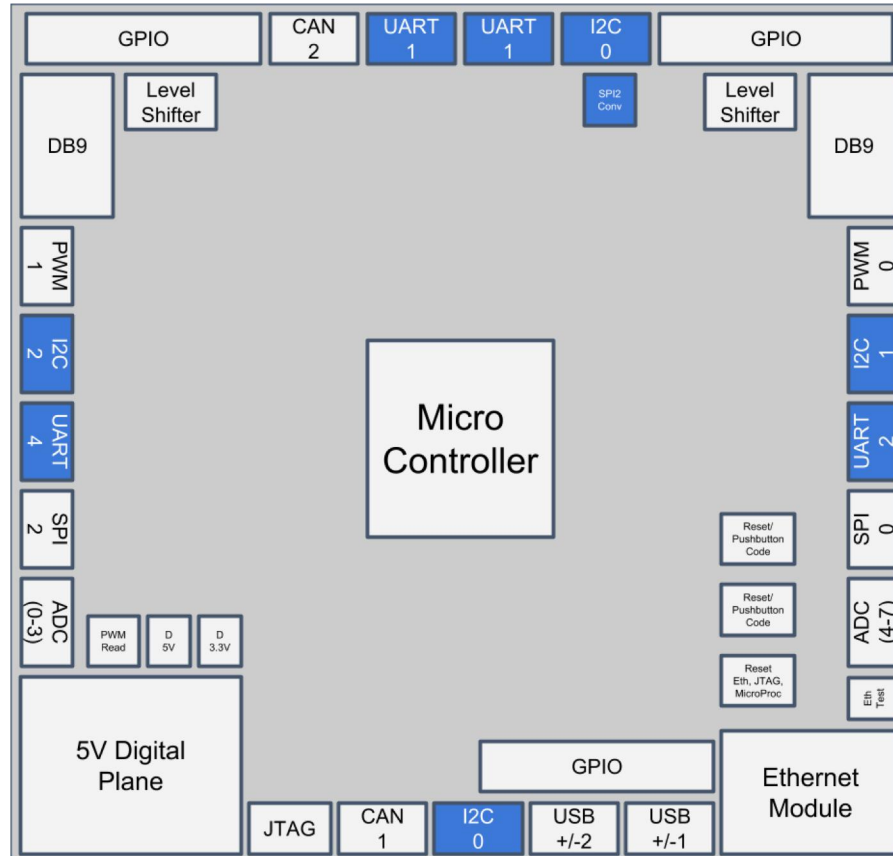
Printed Circuit Board

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Sensor Ports



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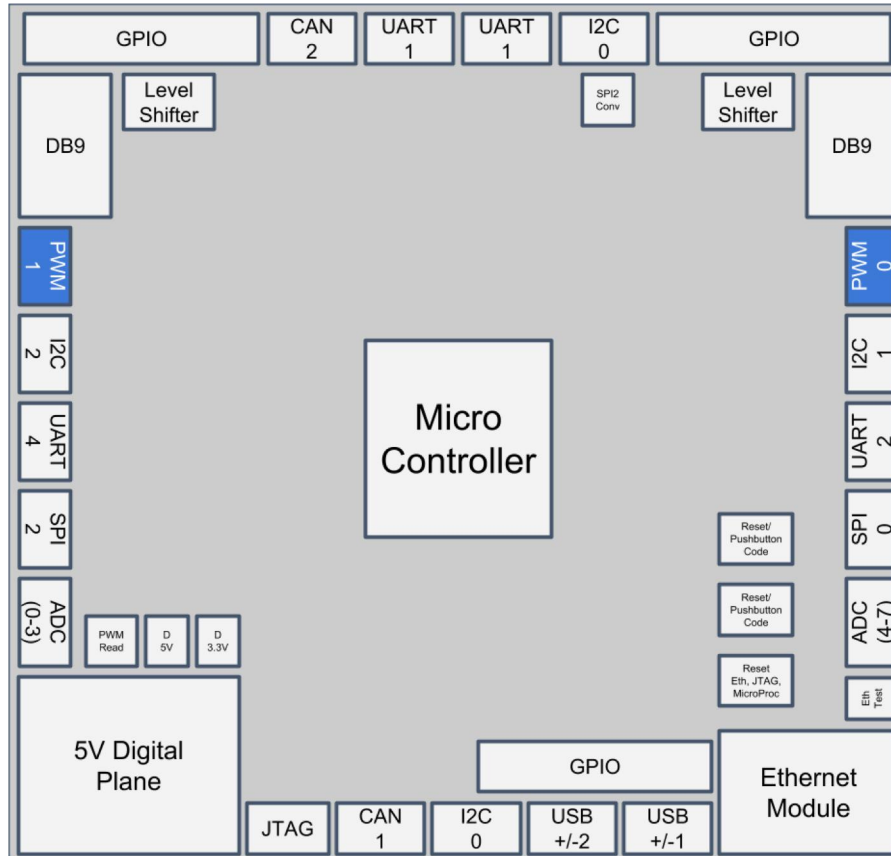
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Motor Ports



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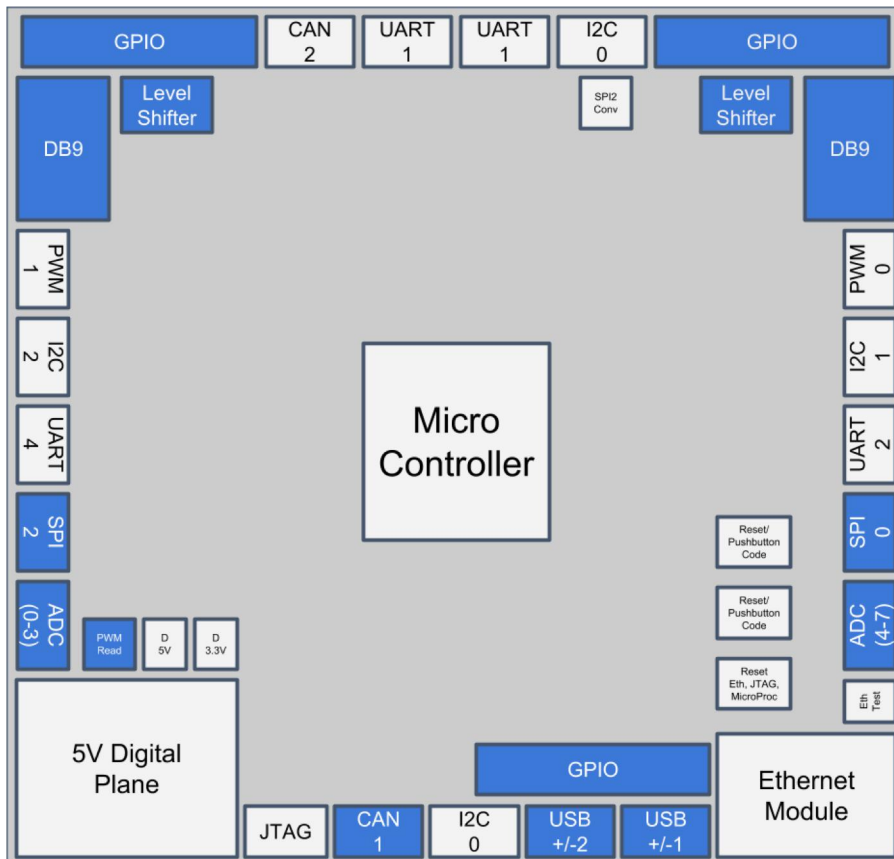
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Communication Ports



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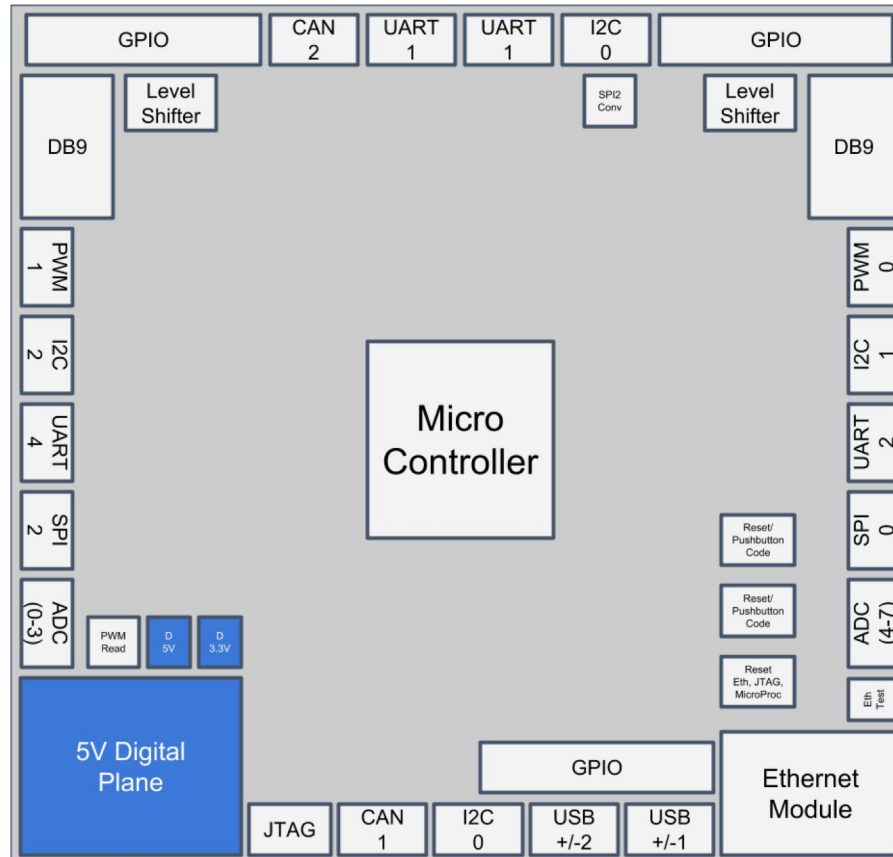
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Power



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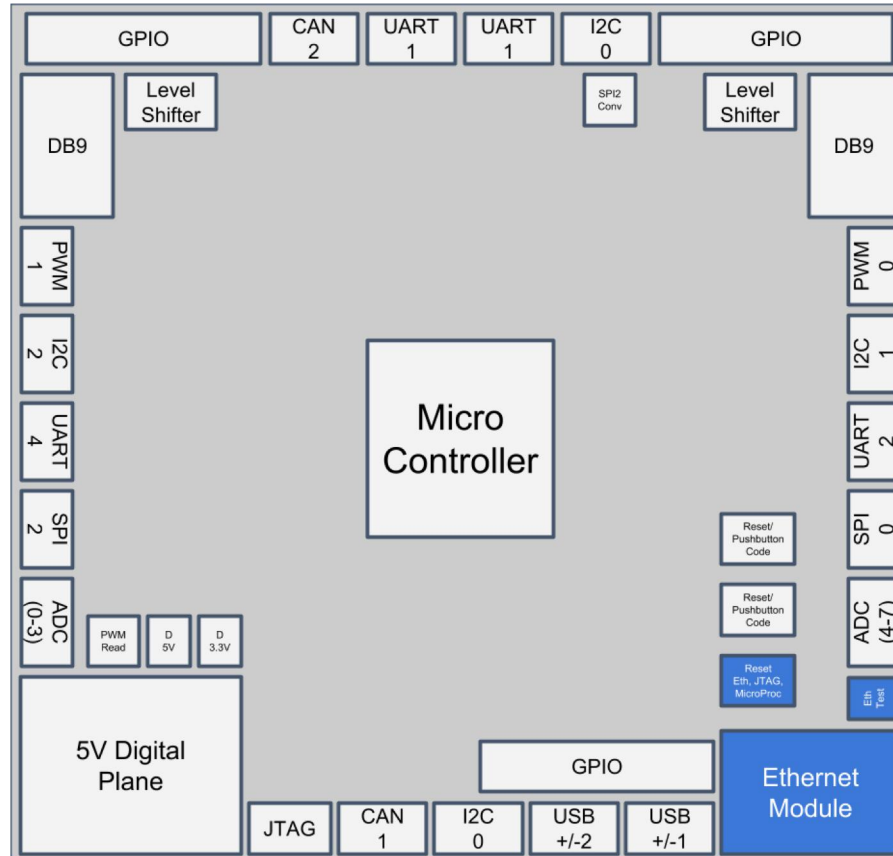
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Wireless Ports



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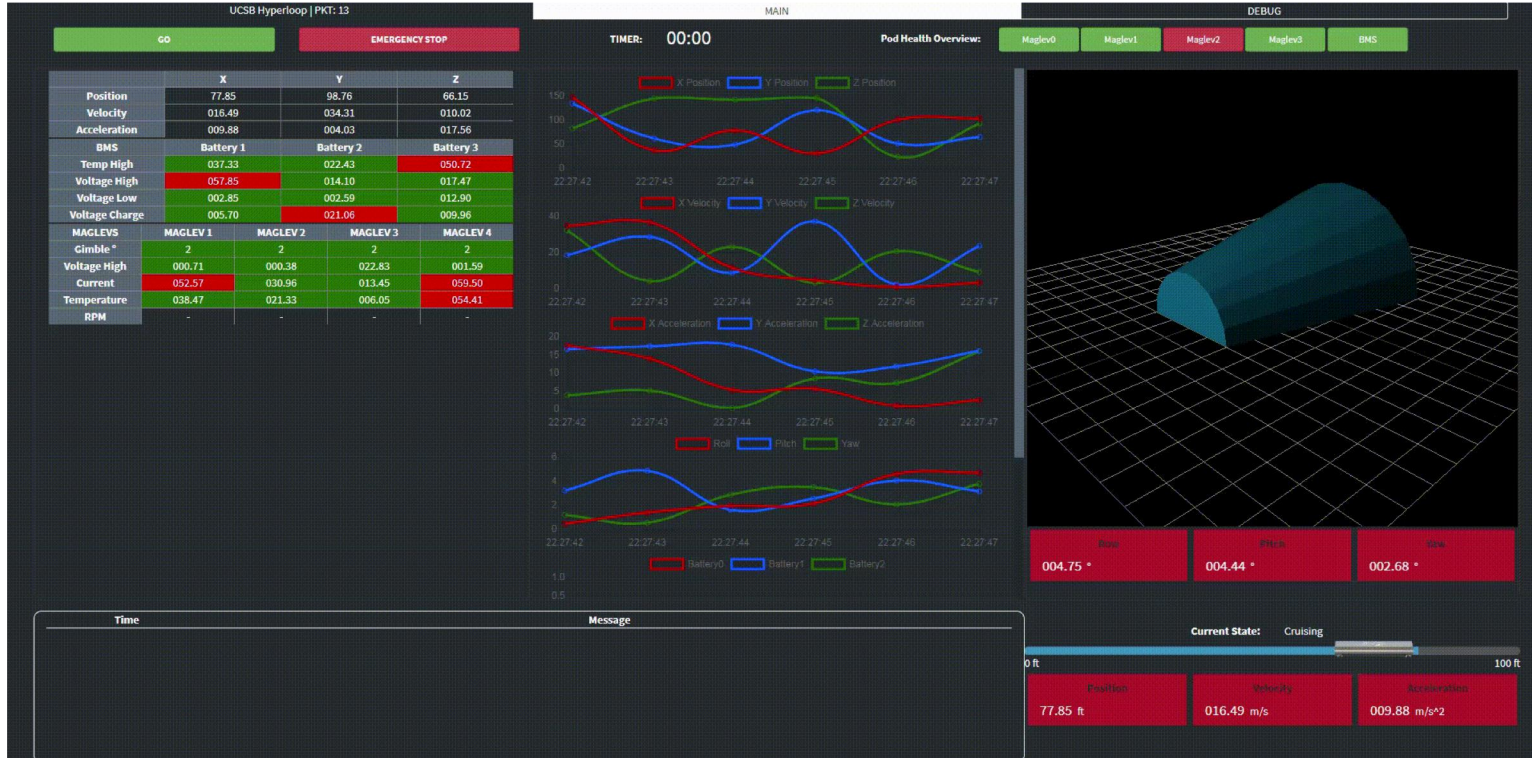
Peripheral Layout

Printed Circuit Board

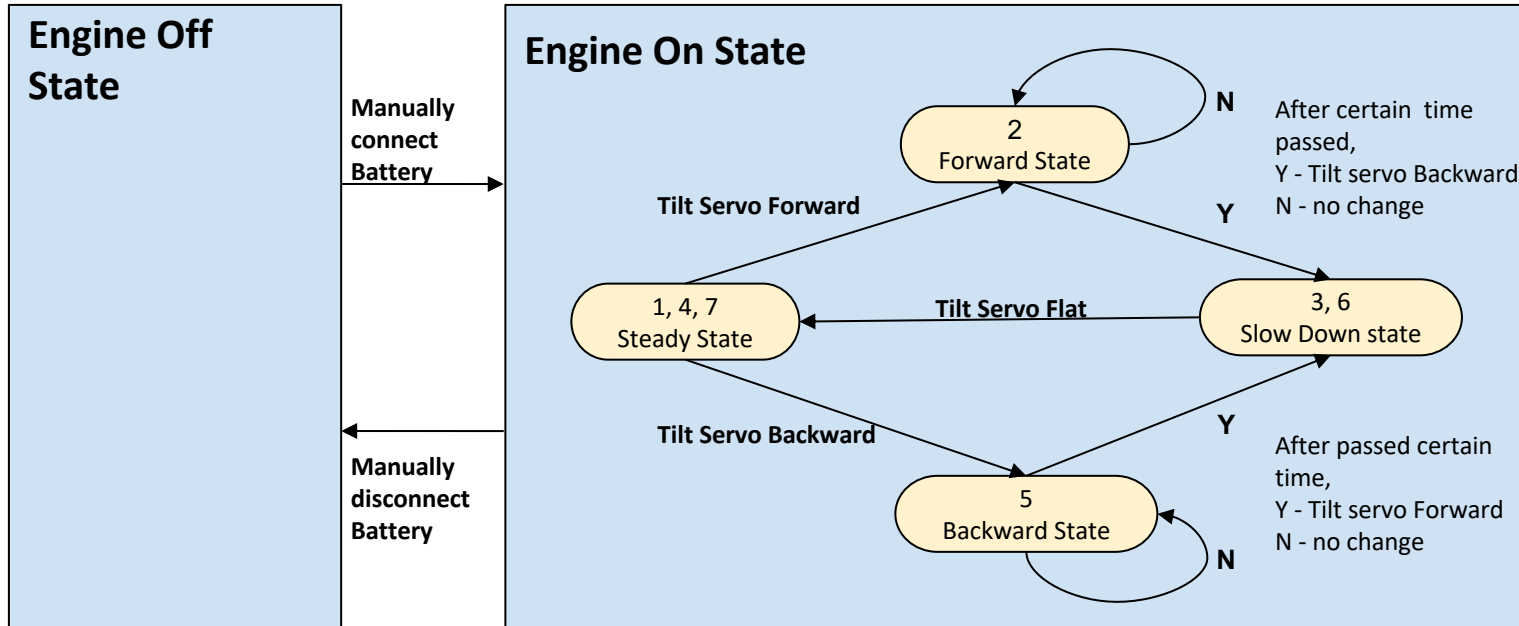
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Timing Profile State Machine



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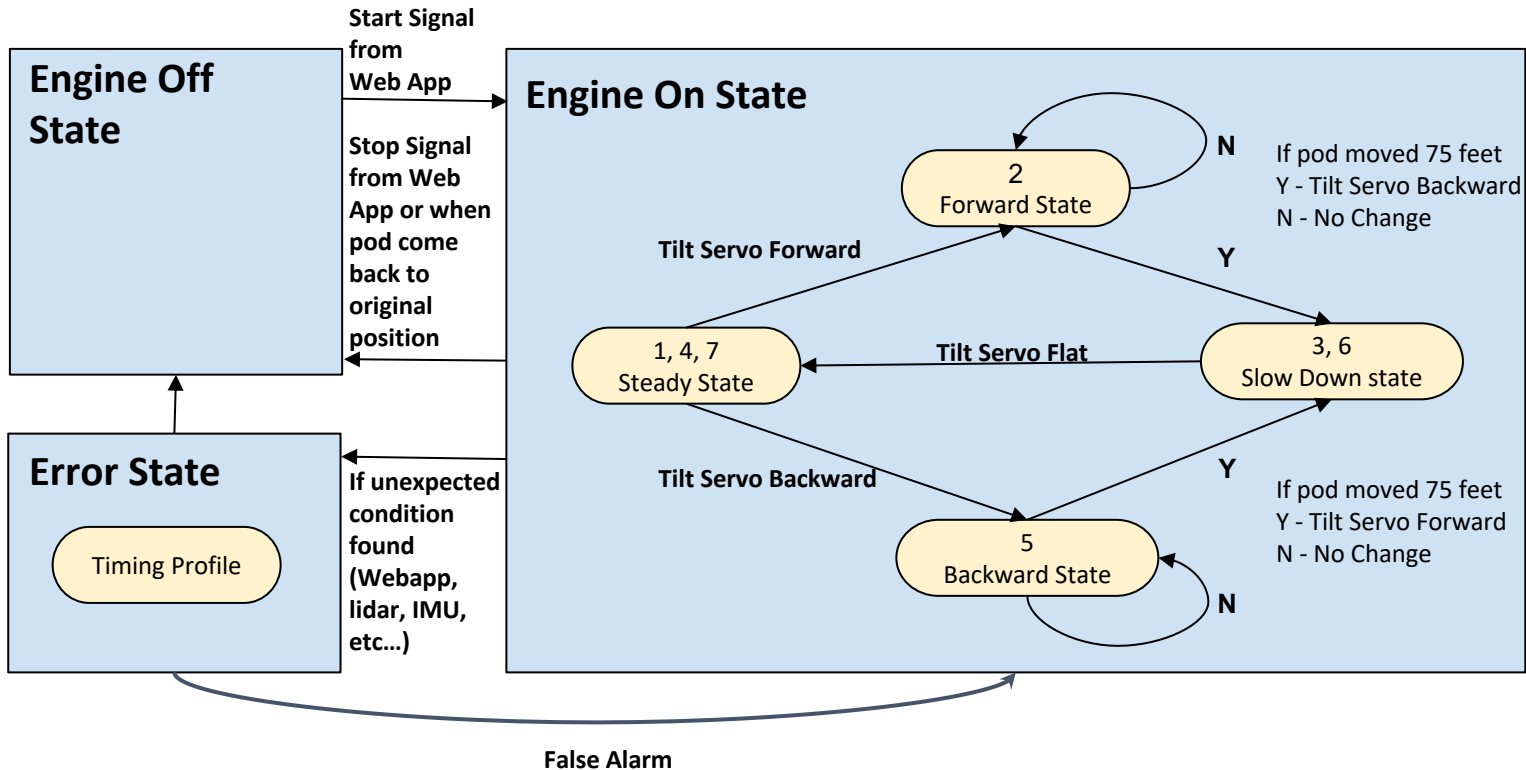
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GPS based State Machine



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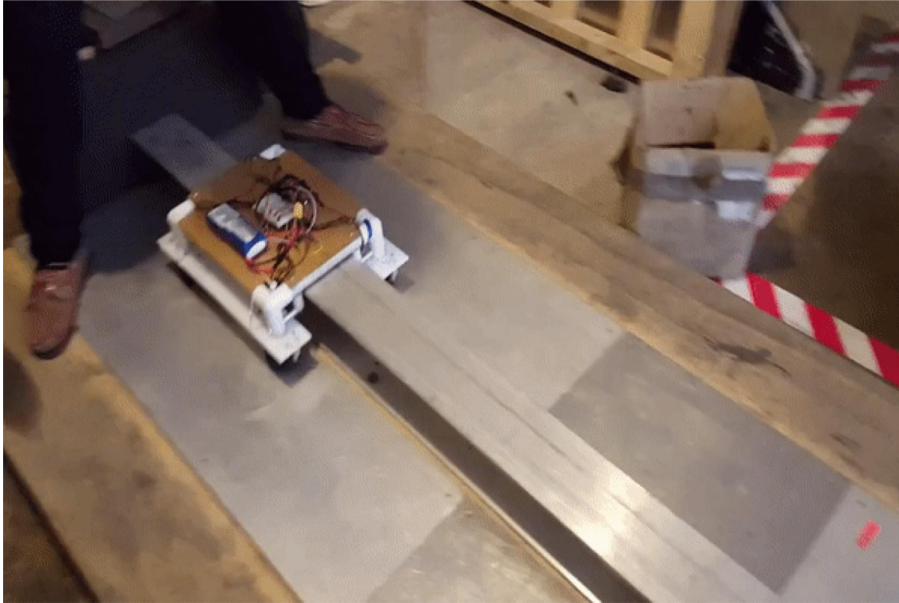
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First Prototype



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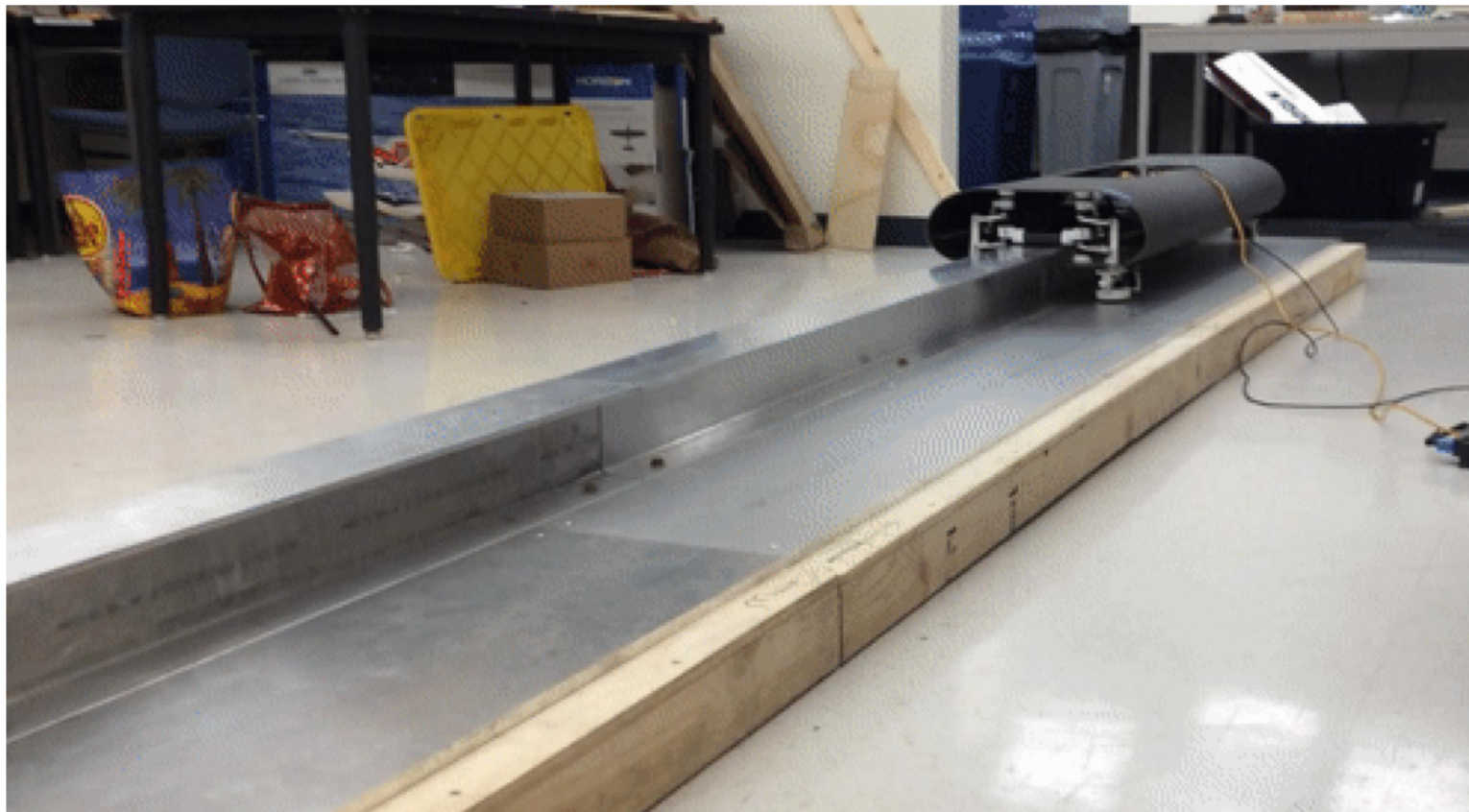
Printed Circuit
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Web App

Prototype

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Final Prototype



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Our Sponsors

Thank You!



Jonathan Siegel Peter Carter Burrous Family
Rob 89' & Tracie Jupille Ken and Nancy Goldsholl
John Jacobs Paul Hoff Neil Smith

Yoga Isukapalli Celeste Bean Caio Motta

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An aerial photograph of the UCSB coastline, showing the ocean, a sandy beach, and the university campus buildings. A large, semi-transparent white circle is overlaid on the center of the image, containing the UCSB logo and event information. The UCSB logo consists of the letters 'UCSB' stacked vertically on the left, a stylized wave graphic in the middle, and the word 'HYPER' above 'LOP' on the right. The 'LOP' part of the logo is a large, stylized letter 'P' with a white-to-black gradient fill.

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Final Presentation
June 8, 2018