

Electrical Training

Week 0: Introduction



Agenda

- Electrical Training Purpose
- Instructor Introductions
- Team Introductions
- Worksheet Introduction
- “Office Hours”

Electrical Training Purpose



Why have training?

Who knows what voltage is?

Who has worked with an Arduino or similar microcontroller?

Who has developed, manufactured, and assembled a custom multi-layer PCB for a robotics sub-system?

2018 Training Approach

- Focus on lab-based learning rather than lectures
 - RoboJackets is practical application rather than taking tests
- Instructors will guide you through labs as needed
- You are encouraged to work with others

Instructor Introductions



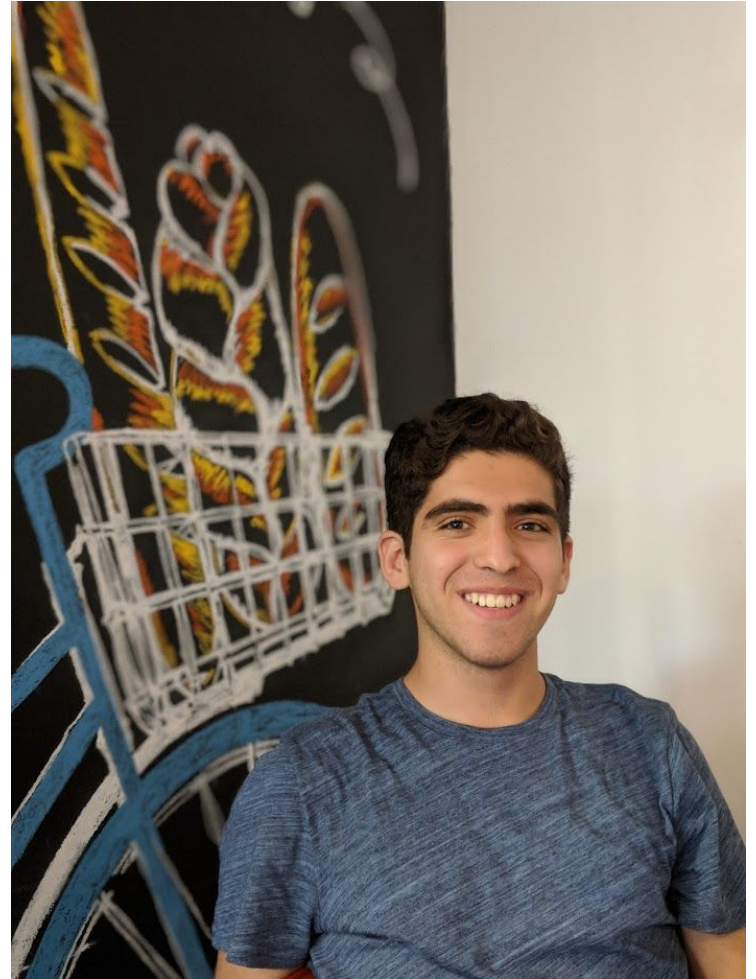
Electrical Training Lead- Joe Spall

- Major - Electrical Engineering
- Year - 3rd Year
- Hometown - Philly, PA
- Team - RoboRacing



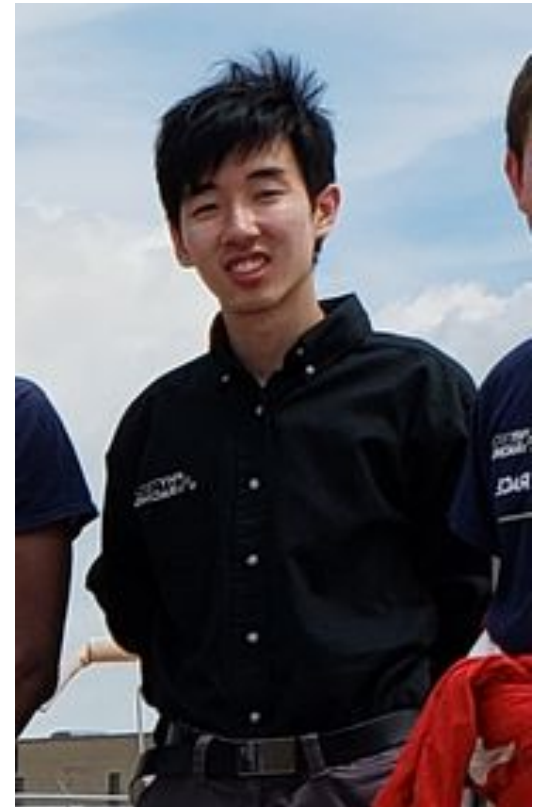
Elec. Training Instructor - Juan Elizondo

- Major - Electrical Engineering
- Year - 2nd Year
- Hometown - Greenville, SC
- Team - BattleBots



Elec. Training Instructor - Soohyun Kim

- Major - Electrical Engineering
- Year - 2nd Year
- Hometown - Auburn, AL
- Team - IGVC



Elec. Training Instructor - Varun Madabushi

- Major - Electrical Engineering
- Year - 2nd Year
- Hometown - Tampa, FL
- Team - RoboRacing, Outreach



Elec. Training Instructor - Alex Xu

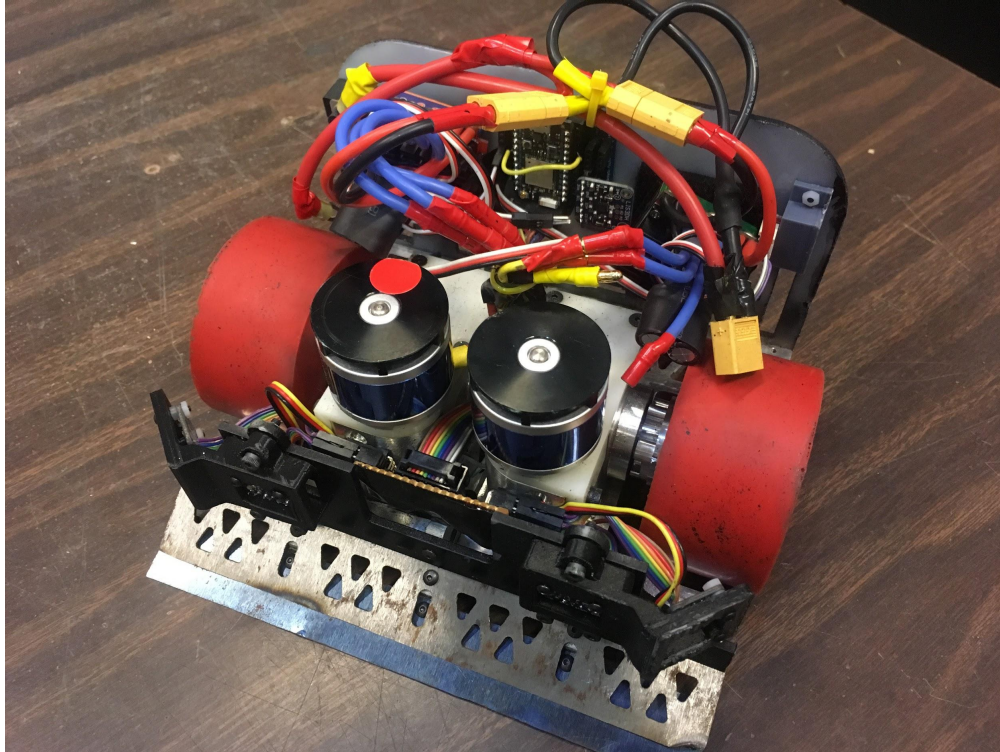
- Major - Computer
- Engineering
- Year - 3rd Year
- Hometown - Shanghai, CN
- Team - IGVC





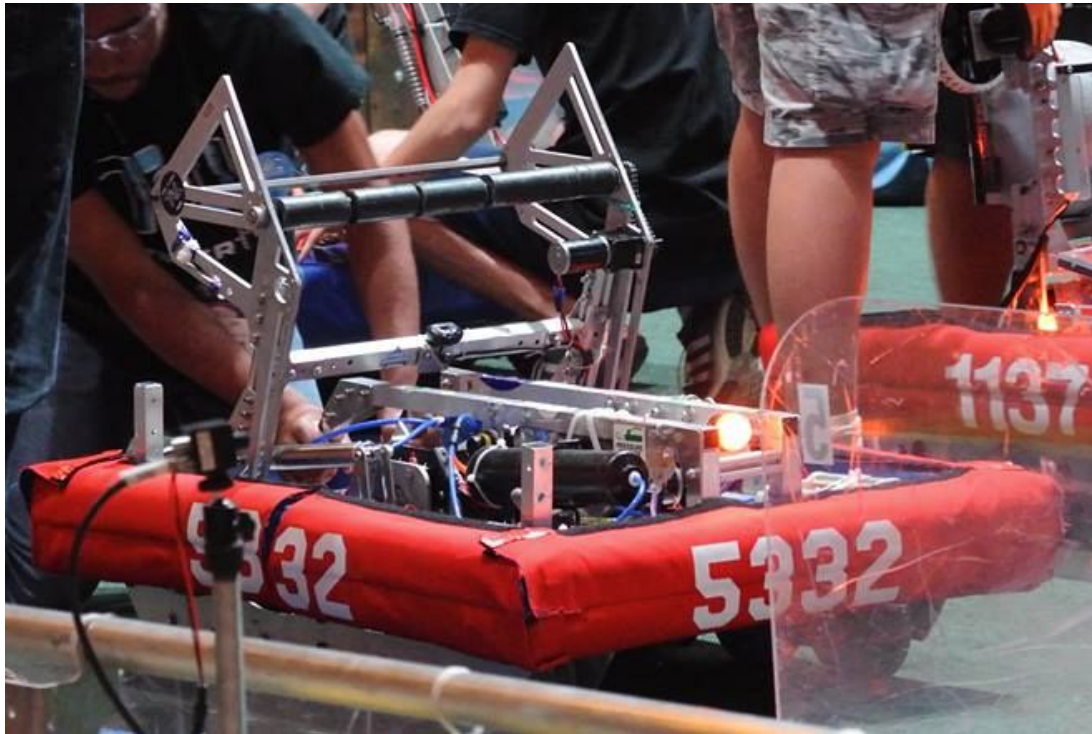
Team Introductions

BattleBots



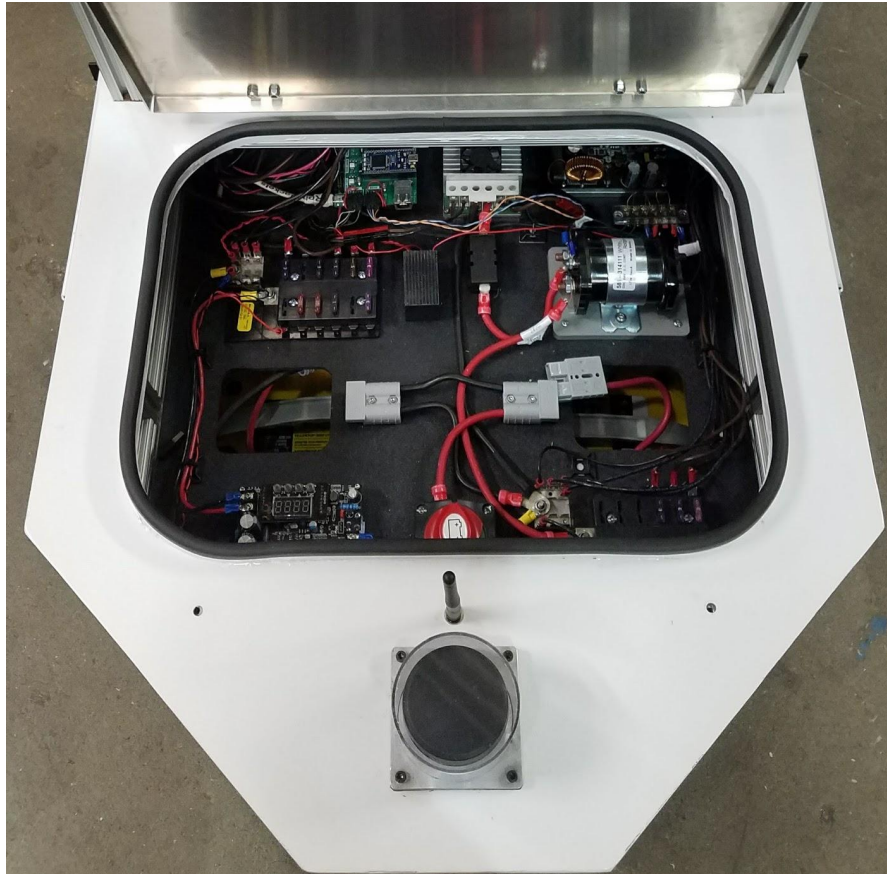
- Motor Operation
- Wireless control
- Power and durability

FIRST Outreach



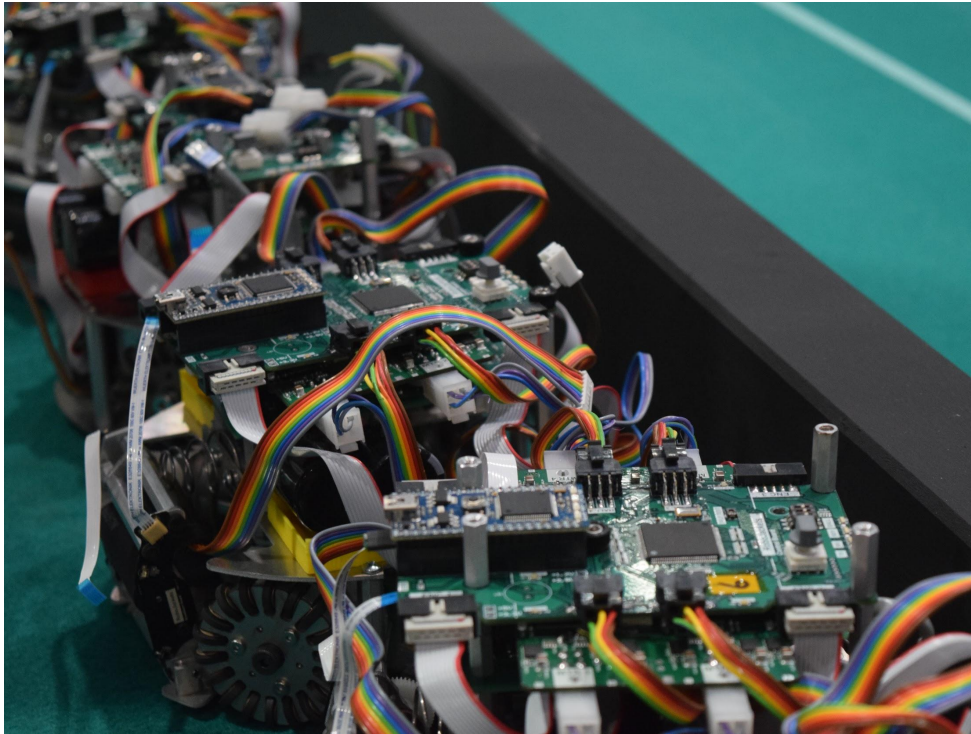
- Work with FRC electrical system
- Teach kids to build basic electrical parts

IGVC



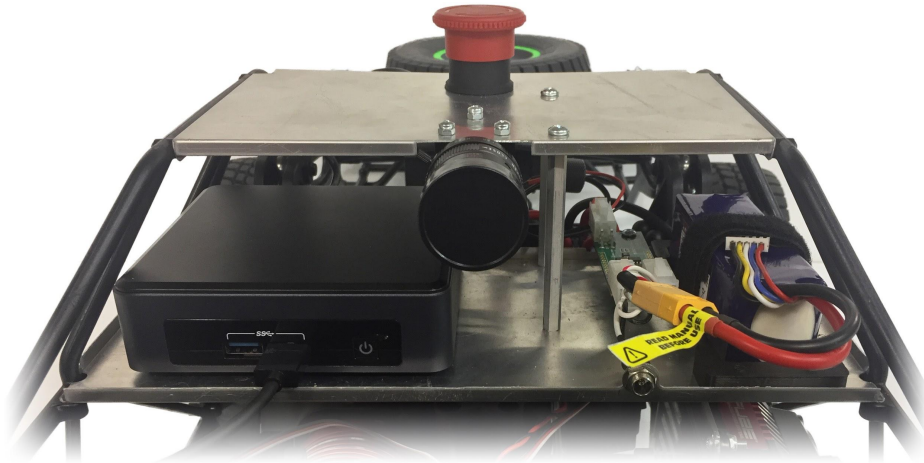
- Custom PCB and off-the-shelf components
- Multitude of sensors
- High-power and precision motor operation

RoboCup



- Main focus on design
- Extreme precision and accuracy
- All electrical boards custom-designed

RoboRacing



- Shock-capable system for rough environment
- High-power and speed motor control

Worksheet Introduction

