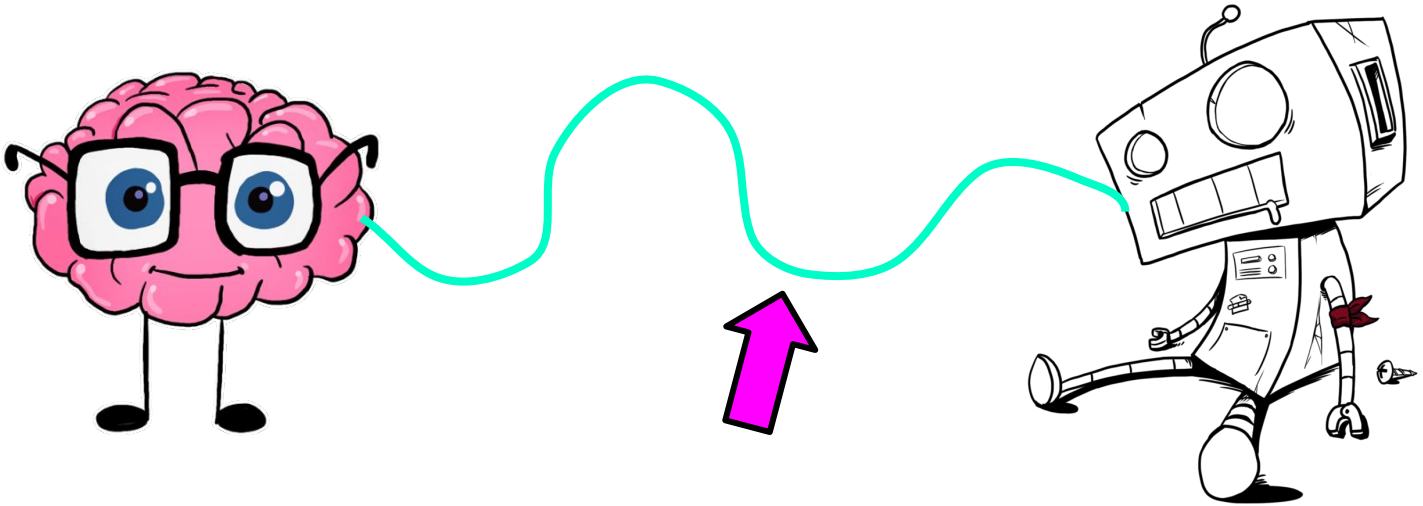
Sub-Group Actuators

Team overview

Electrical

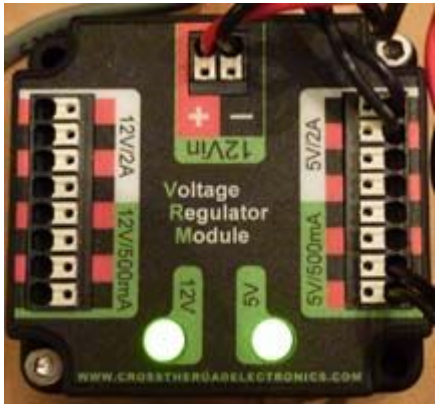
Purpose:

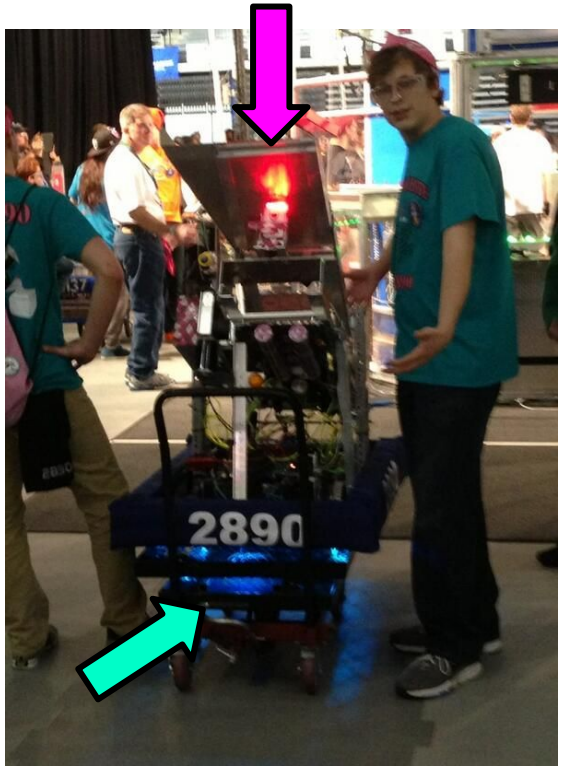
to make the brains and the motor functions of the robot connect



Electrical Tasks

- Designing functioning Electrical boards
- Proficiently troubleshoot the boards
  - THE BLINKY LIGHTS!!!!!





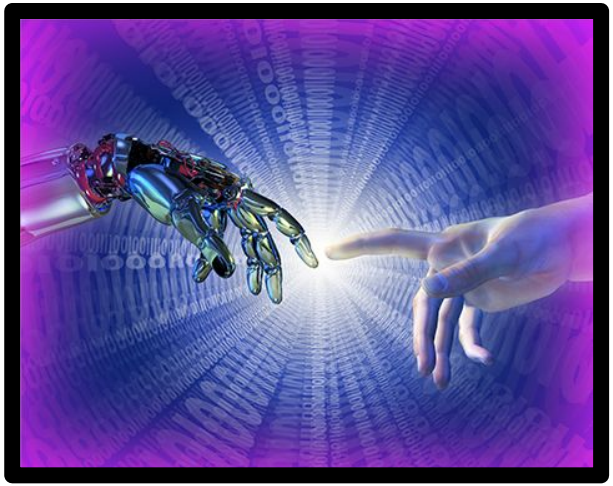
Much to Fun learn...

- How to solder
- Make multiple electrical boards
- Proper crimping techniques
- Proper wire gauge (size)
- Tidiness of layout and design to minimize possible snags without interfering with reparability (Make it not scrape your fingers when you try to fix it)
- Understand the basic characteristics of electron flow through the board
- Basic understanding of trouble/diagnostic lights

Sensors

Purpose:

Making the robot sense things



Sensors Tasks

- Researching new electrical and motion devices.
  - Work with the programing team to develop new ways of sensing the world around the robot.
  - Understand the different ways of sensing different motions / functions. Often there are lots of ways to get the data into the RIO.

Pneumatics

Purpose: Move, push, fire, lift robot components quickly and efficiently without the use of motors

Cool things you'll do

- Design a functioning pneumatics system

Cool things you'll do

Cool things you'll do

Cool things you'll do

Cool things you'll do

Cool things you'll do

L THINGS YOU'LL DO

- Design a functioning pneumatics system
- Diagnose a pneumatics board using BUBBLES!
- Know the location and use of sensors and valves
- Understand all the different kinds of solenoids we have
- Pull the emergency release valve in the middle of build season to make people jump
- Help the electronics peeps with the wiring of pneumatic components
- Always suggest that using pneumatics is the better way to go, and ironically (but secretly unironically) suggest using a catapult