**Member Name(s):** Jared Allen

**Project:** PCB Rover Controller

**System Objective:**

Remote operate rover in two modes, standard tank drive and assisted drive (to allow non-experienced users drive the rover) and do so without connection to base station software.

**System Requirements & Parameters:**

* ESP connection to rover
* LCD to display important data such as speed
* Assisted driving mode for non-experienced drivers to use.
* Two joysticks, one for velocity and another for direction.
* Battery operated with decent lifetime

9/21/19

* Design choices
  + ESP8266 NodeMCU is going to be the main controller for the entire controller.
    - Note enough analogue in ports, so analogue to digital ICs required
    - Allows for the least amount of room to be used on the board
  + 16x2 LCD with I2C is currently the choice of screen
    - Will use more power than OLED screen
    - I2C will only require 2 GPIO ports on nodeMCU
* Decisions made
  + The decision was made to not use any microcontroller with ESP connection due to spacing and configuration issues.
* Progress made
  + Power system designed in schematic using 7805 voltage regulator. 9V battery brought down to 5V output.