NAKUJA PROJECT
PROPULSION TEST STAND PCBS

IGNITION PCB

Purposes

1. Ignition of the fuel
2. Provide redundancy to ensure several options for ignition.
3. Provide power for the raspberry pi

Requirements

1. Use a signal from the raspberry pi to turn on and off a relay module.
2. Provide power for the raspberry pi from the available 12 V
3. Provide power for the Arduino

DATA LOGGING PCB

Purposes

1. Ensure data flow from the load cells to the load cell amplifier
2. Ensure data flow from the load cell amplifier to the Arduino board

Requirements

1. Have a compact connection between the wires from the load cells to the amplifier.
2. Have connection between the amplifier and the Arduino via header pins.

Useful info

1. Load cell amplifier is known as hx711. Found on the link shown.
2. The PCBs should not exceed 100 mm by 75 mm
3. Both PCBs will be embedded on one PCB to make them compact.