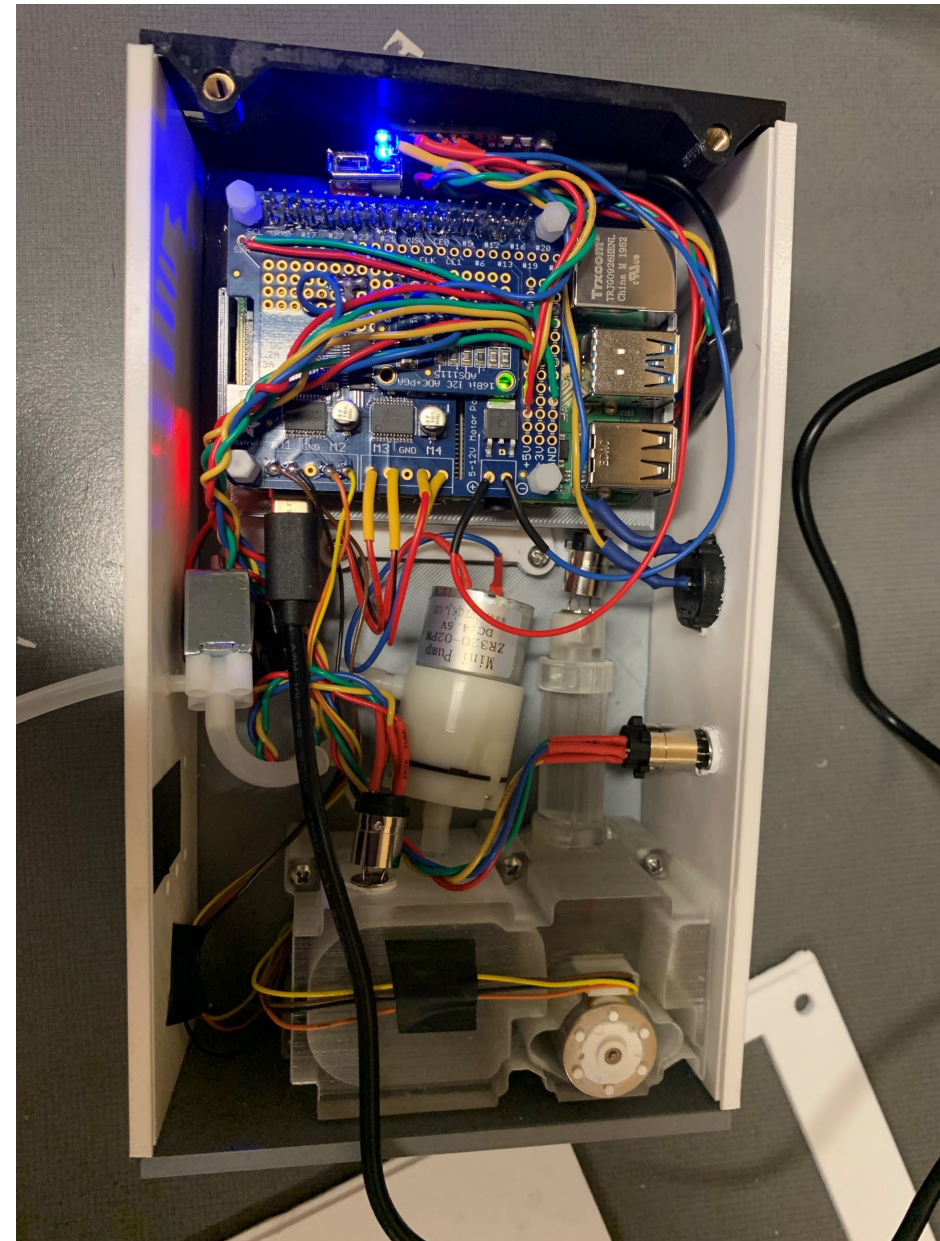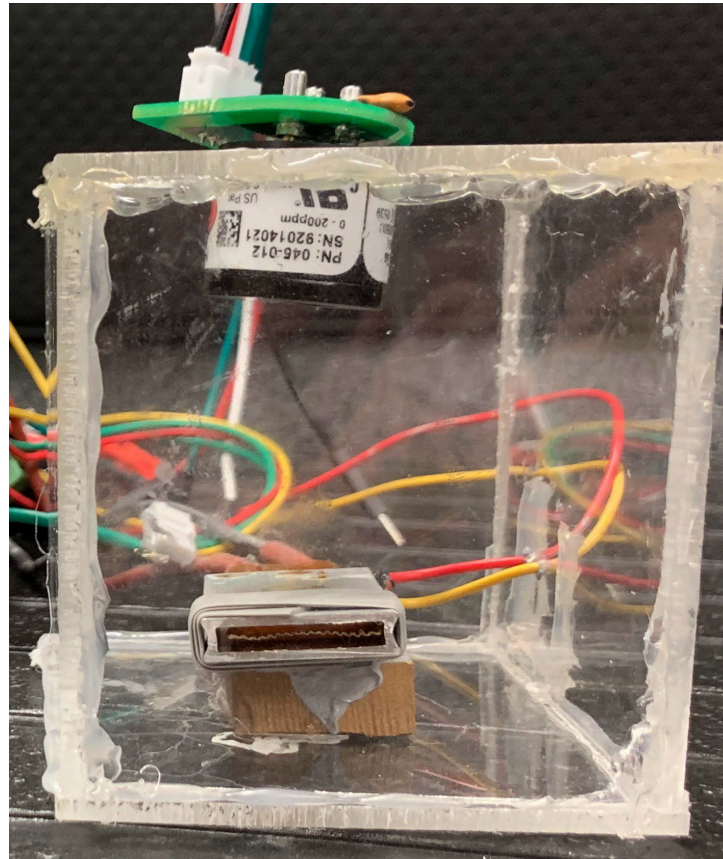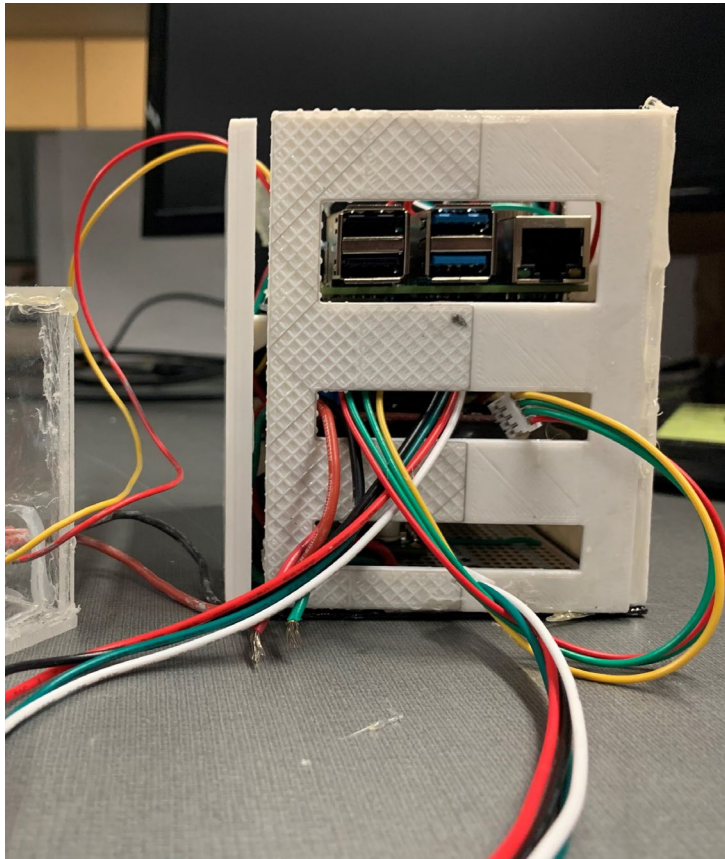# Adi Ravishankara

Engineering Portfolio

Portable Gas Detector

- Custom developed Gas sensors using PIDs, MOS and MIPs running on Raspberry Pi and using ML for identifications
- Developed to be portable and runs on battery power
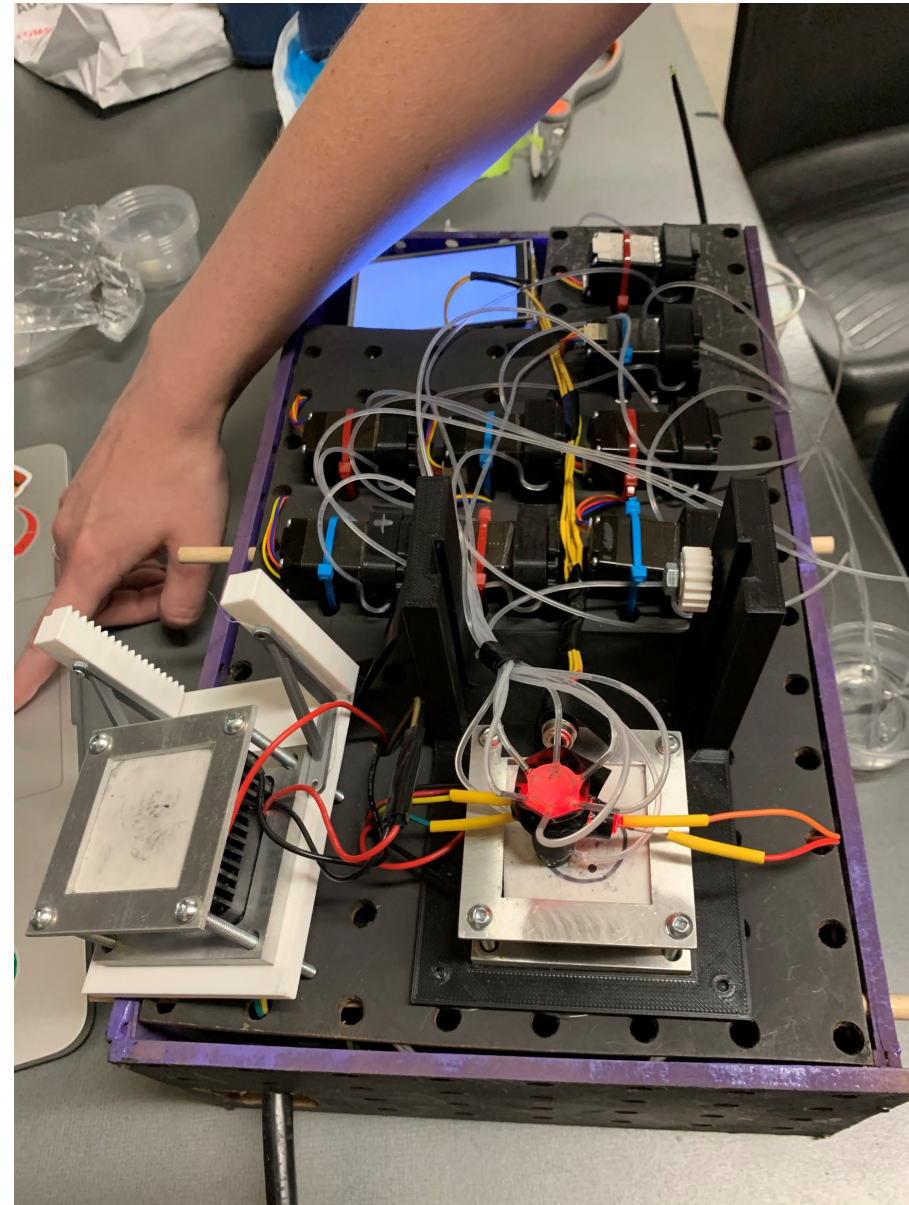- Prototype was field tested and found successful

Gas Sensor Evaluation Platform

- Vaporization chamber capable of precise temperature control and vaporization of molecules
- Can test multiple different types of gas sensor for validation of sensors

Automated PCR Device

- Self-contained and automated PCR device
- After providing inputs through the various peristaltic pumps, the system will run thermocycling based on developed protocols
- Output of system is validated externally

Radar Stud Finder

- Using the Walabot system

- Radar for imaging structures behind a wall

- Trying to increase distance of measurement to be able to measure without wall contact

- Combining data with an ultrasonic sensor for better measurement

Necklace

- Custom necklace pendant

- Going to embed BLE and LEDs

- Idea is that necklace lights up when we message each other