

# Fabrication and Physics teams

## Sensor Development

Skills: electronics, fluids, fabrication, ProCoDA, electrical engineering, computer science

### Big questions to answer

- Can we create additional sensors that will help us learn more about water and wastewater treatment?

### Tasks and goals

- Fluidized bed solids detector (for 1" PVC reactors)
  - Increase intensity of photosensor LED light for fluidized bed sensor. Run another calibration test to determine more accurate calibration curve
  - Test photosensor with AFB reactors
- Fluidized bed submersible solids submersible detector (for AguaClara plants)
  - Develop a probe that can measure floc blanket concentration by being submerged in the floc blanket.
  - Initially use ProCoDA to measure the voltage output of the sensor
  - Eventually convert this to a battery powered (or smart phone powered) sensor
  - Test this probe using the 1 L/s plant
- Floc Hopper solids interface level detector- to measure depth of sludge in floc hopper
  - Test in 1 L/s plant and in Honduras