# Improved Salmon and Trout Egg Counter Weekly Progress Report

Report date: 2/13/2022

- **Last Week**
  - Team Review
    - Team Review with Mark Faust and Andrew Greenberg - they think we should tell Curt what we want to do and show him that the Pi is the best option.
    - Held an in-person Group meeting to work on Raspberry Pi and camera
    - Confirmed sensor arm layout
    - When meeting with Curt on Sunday, we agreed to move forward with the photoresistors and getting an accurate egg count with the Raspberry Pi and then having the Raspberry Pi camera as an option if we have more time.
  - Sydney
    - Updated GitHub
    - Bought Pi camera and sourced Pi, got Pi software download, and writing to the SD card for the Pi
    - Bought photoresistors to breadboard
  - Sean
    - Looked At Data Out on ESP-32
    - Looked at Possibilities of using Rasp Pi (ie rasp pi camera libraries)
    - Made some preliminary egg detection code in google colab
    - Obtained rasp pi camera for testing
  - Agustin
    - Meet with Curtis and Josh in person at the Jensorter shop
    - Worked on get the ESP-32 camera to take a photo
      - Failed, will do proper debug during the week
    - Collected components
      - SD Card, Laser, IR Sensor
  - Trueman
    - Created the Power System covering battery, processor, camera, & motor (Ryobi 18V, R.Pi 4B, R.Pi Cam V2, & MOLON CHM12501M)
    - Searched probably components
- **Next week**
  - Team Plan
    - Confirm Parts list (Display, processor, camera, photoresistor, LEDs, ect.)
    - In-person meeting with Curt to build prototype and solder on Sunday @2pm
  - Sydney
    - Get the photoresistor to work this week and detect egg or no egg using light

- Sean
  - Expand on Imaging code to split images & using live photos
  - Set up rasp pi cam
  - Test using rasp pi cam
  - Get Motor Set up to Agustin
- Agustin
  - Investigate LCD Screen (Seven Segment Display)
    - Count of Egg, Batching, UI options.
    - Possibly HDMI screen
- Trueman
  - Add confirmed parts to the power document.
  - Investigate MOLON Motor integration
  - Start B.O.M.

**Blocked**

- Team Blocks
  - Getting Curt to concede to using a Raspberry Pi as the main processor
- Sydney
  - Super busy on the weekends currently, and Pi isn't writing properly yet
- Sean
  - Solutions to deal with variable lighting conditions for camera (use home depot gray card?)
- Agustin
  - -
- Trueman
  - Power system and B.O.M. will not be finished until all parts are finalized