**Data Journal**

1. *GoProFrontView:*
   1. ***Isolated hand reaching attempts****. Took me a while, but I isolated frames using two ways: hand crosses the line, which means the hand is outside the acrylic and is reaching. The other method was to isolate frames where the hand was within a set distance of where the pellet would be (if it was up). In this case I used 35 pixels.*
   2. ***Created a compilation of hand reaches*** *for easier studying. Used python to automate the writing of a very simple windows batch ‘script’, using ffmpeg to cut small segments around the time of each reach and concatenating them all together.*
   3. ***isolating when the pellet is actually in place*** *(in progress), in hopes of isolating when hand reaches are to be classified as attempts.*
   4. ***Determine whether hand reach is an attempt*** *based on whether the pellet is in place or not.*
   5. *POTENTIAL PROBLEM*
      1. *Isolated hand reaching attempts seem to be very sensitive to minute changes. Within the video there are two slight bumps/shifts in the video angle (with no visible effects to lighting, etc), between which my ability to find hand attempts within the radius tanked completely. By some freak chance, the tracking went back to normal after the 2nd shift. I should base my reaching attempts on something more flexible instead of hard coding, and at least have ways to know when it happens.*
      2. *FIX: Use likelihood instead of pellet position. If the pellet is at the dispenser position and is undisturbed, the likelihood is a lot higher, and we can use that. Later, with a sloped catch-tray on the dispenser, we’ll figure more stuff out and maybe use positioning again.*