~~\*alignment~~

\*background subtraction

~~\*thresholding~~

\*filters

\*ROI identification

\*quantify

\*phase and period

PROBLEM

Automate the process using existing tools

0th program

open images in ImageJ

1st program(s)

Align images, background subtract, threshold, and filter

What filters

What threshold

Where is best for background subtraction

2nd program(s)

ROI indentifation, quantify, phase and period

ROI is?

What to measure?

How to find phase and period of reporter expression over time? Multiple subproblems

Pipeline so far:

preprocess.bat causes ImageJ to run a macro that opens all of the images in a folder, does some processing (background subtraction, thresholding, image registration and filters) and saves the processed images to a folder.

Next is to figure out how to identify ROI, quantify image data, and find the phase and period of an image.

UPDATE – March 7, 2018

Segmentation is done by functions of segmentation.py

The ImageJ class in ImageJ\_program forms a simple interface to the ImageJ program

The module lucbase2.py has some helpful classes and functions.

I think I just solved one of the hardest puzzles I have yet to encounter writing this pipeline.