

Steps:

1. Grab pre-filled needle from needle box in fridge
2. Insert the needles into the needle holders
3. Put the dish with embryos into the dish holder
4. Turn on the power supply, turn on the LED supply to intensity 8
5. Press run for Robot_GUI.py script in the Spyder IDE
6. Enter the dish number (MAKE SURE YOU DO THIS BEFORE 8)
7. Enter the pipette number (MAKE SURE YOU DO THIS BEFORE 8)
8. Enlarge the GUI and press the "Start Stream" button
9. Wait until the streams appears and get the pipette in focus in both FOVs
10. Press the "Start Robot" button
11. Once the XYZ stage moves under the pipette (after ML detection), turn the pressure on.
12. Wait for robot to finish all injections
13. Press the "Stop Robot" button
14. Press the "Go to position" button
15. Turn off the pressure, turn off the power supply, remove the dish
16. Record stats in google drive
17. Then run command `os.system("taskkill /im python.exe /F")`
18. Then close the kernel
19. Transfer embryos to premade yeast plate and put dish in 25 C fridge

If the needle gets clogged:

1. Look at the pipette box asking if the needle is clogged, verify that it says **Yes**
2. Rotate the holder to the new pipette
3. Adjust the valves accordingly
4. Get needle in focus (relatively in center of screen and have needle parallel to XYZ stage)
5. Edit pipette number box to the new needle number you are using (this is marked on the top of the pipette holder)
6. Press the **Change pipette** button

If something else goes wrong:

1. Press Stop robot
2. Press Go to position
3. Turn off the pressure, turn off the power supply, remove the dish
4. In the kernel run command: `import os`
5. Then run command `os.system("taskkill /im python.exe /F")`
6. Then close the kernel

Changing variables in the code (soon to be added to the GUI):

- To change how fast the fluid is injected either (in the script `move_embryo_fov_new_new_thresh_pressure.py`):
 - Edit line 333 (right now it is at 1 can change to 2 to inject fluid faster)
 - Edit line 334 (add a delay ie: `time.sleep(1)`, this will inject the fluid slower)