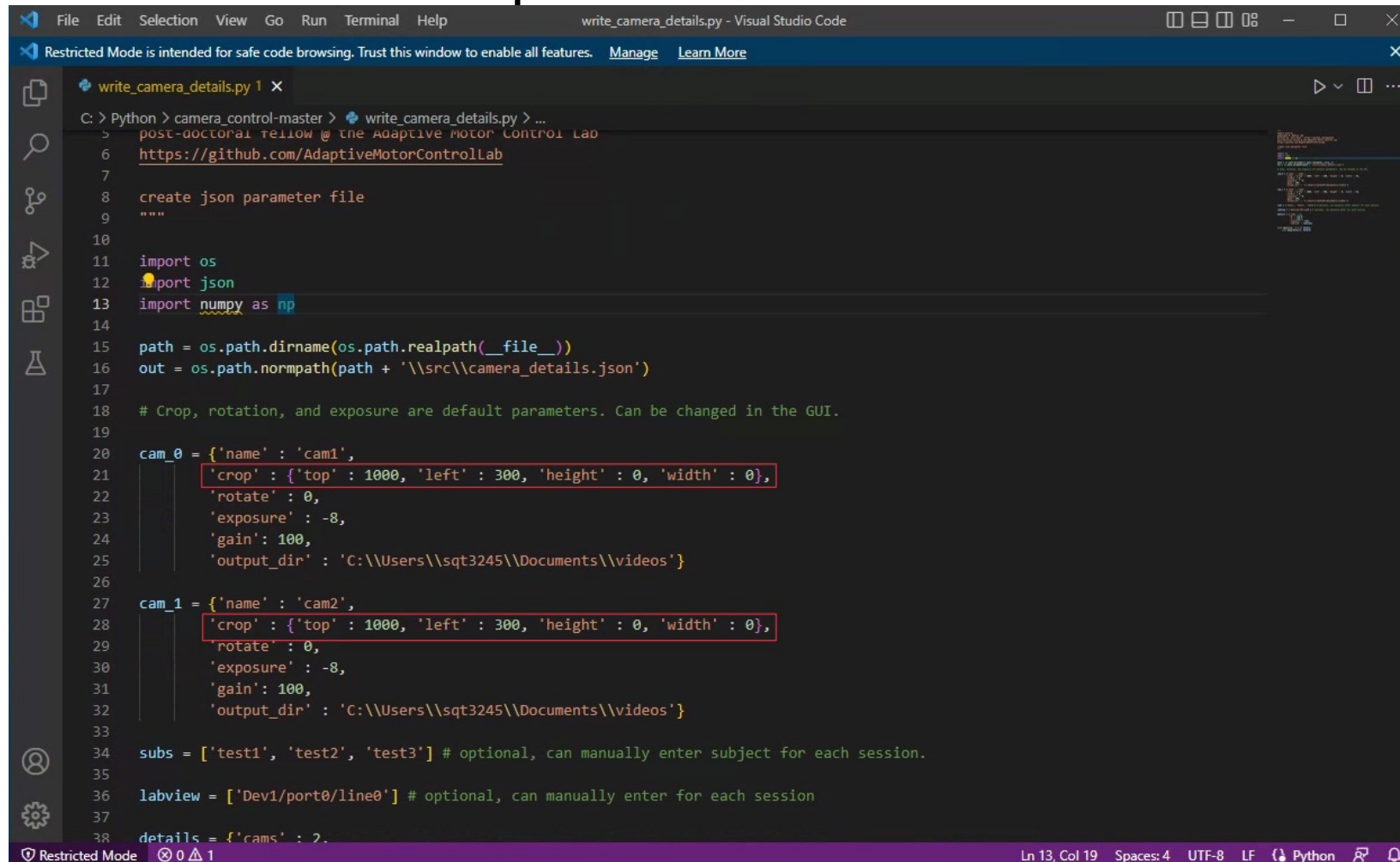


Python GUI FOV change

Open the write_camera_details.py and adjust the boxed parameters. Next slides will show how to obtain those parameters.

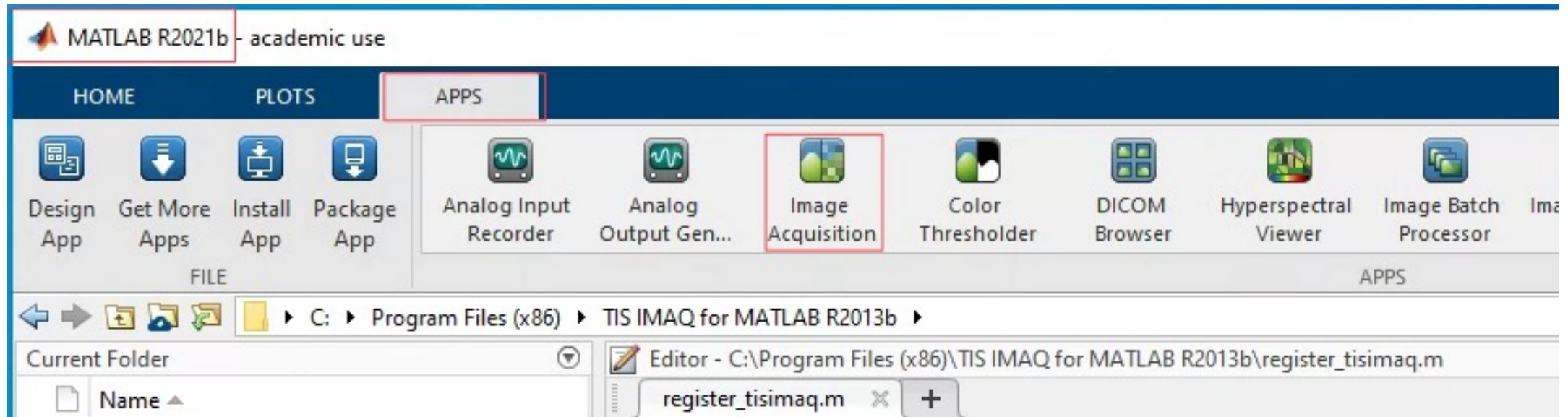


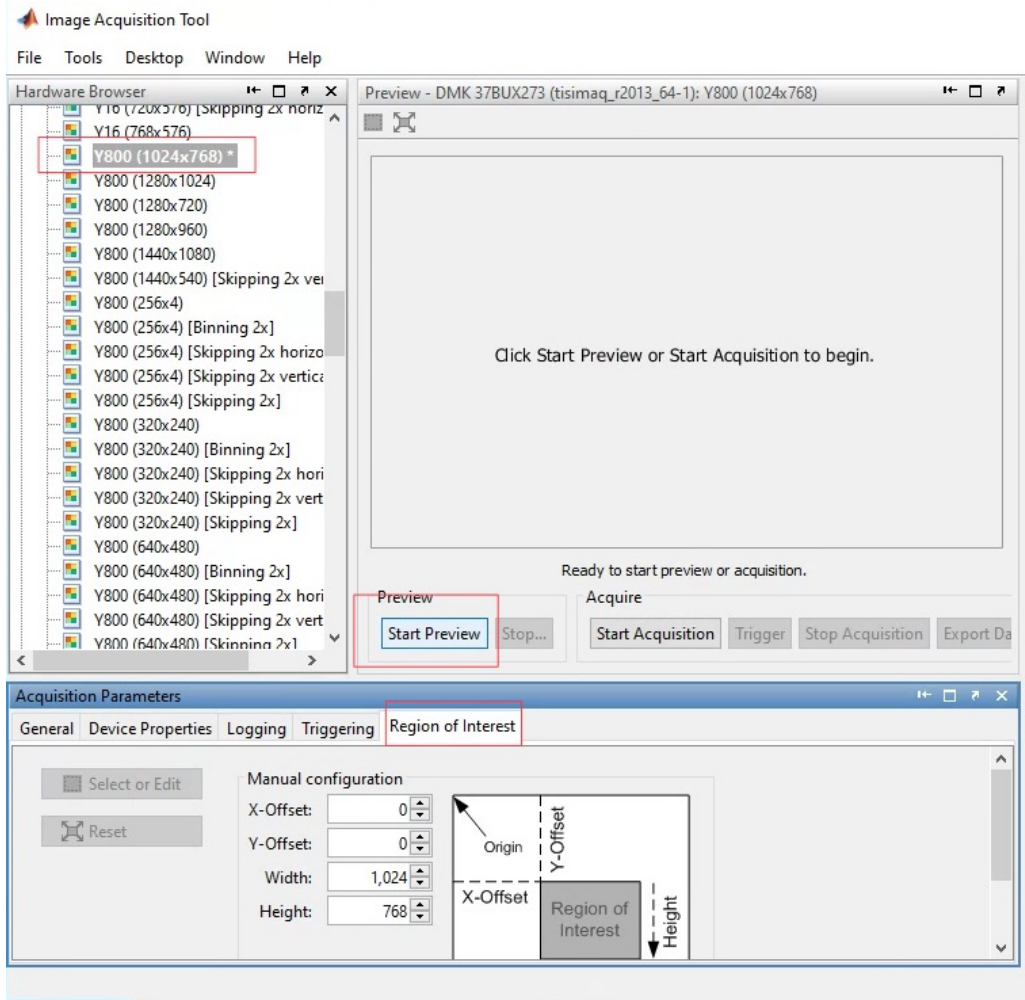
```
File Edit Selection View Go Run Terminal Help write_camera_details.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

write_camera_details.py 1 X
C:\> Python > camera_control-master > write_camera_details.py > ...
> post-doctoral fellow @ the Adaptive Motor Control Lab
6 https://github.com/AdaptiveMotorControlLab
7
8 create json parameter file
9 """
10
11 import os
12 import json
13 import numpy as np
14
15 path = os.path.dirname(os.path.realpath(__file__))
16 out = os.path.normpath(path + '\\src\\camera_details.json')
17
18 # Crop, rotation, and exposure are default parameters. Can be changed in the GUI.
19
20 cam_0 = {'name': 'cam1',
21         'crop': {'top': 1000, 'left': 300, 'height': 0, 'width': 0},
22         'rotate': 0,
23         'exposure': -8,
24         'gain': 100,
25         'output_dir': 'C:\\Users\\sqt3245\\Documents\\videos'}
26
27 cam_1 = {'name': 'cam2',
28         'crop': {'top': 1000, 'left': 300, 'height': 0, 'width': 0},
29         'rotate': 0,
30         'exposure': -8,
31         'gain': 100,
32         'output_dir': 'C:\\Users\\sqt3245\\Documents\\videos'}
33
34 subs = ['test1', 'test2', 'test3'] # optional, can manually enter subject for each session.
35
36 labview = ['Dev1/port0/line0'] # optional, can manually enter for each session
37
38 details = {'cams': 2,
```

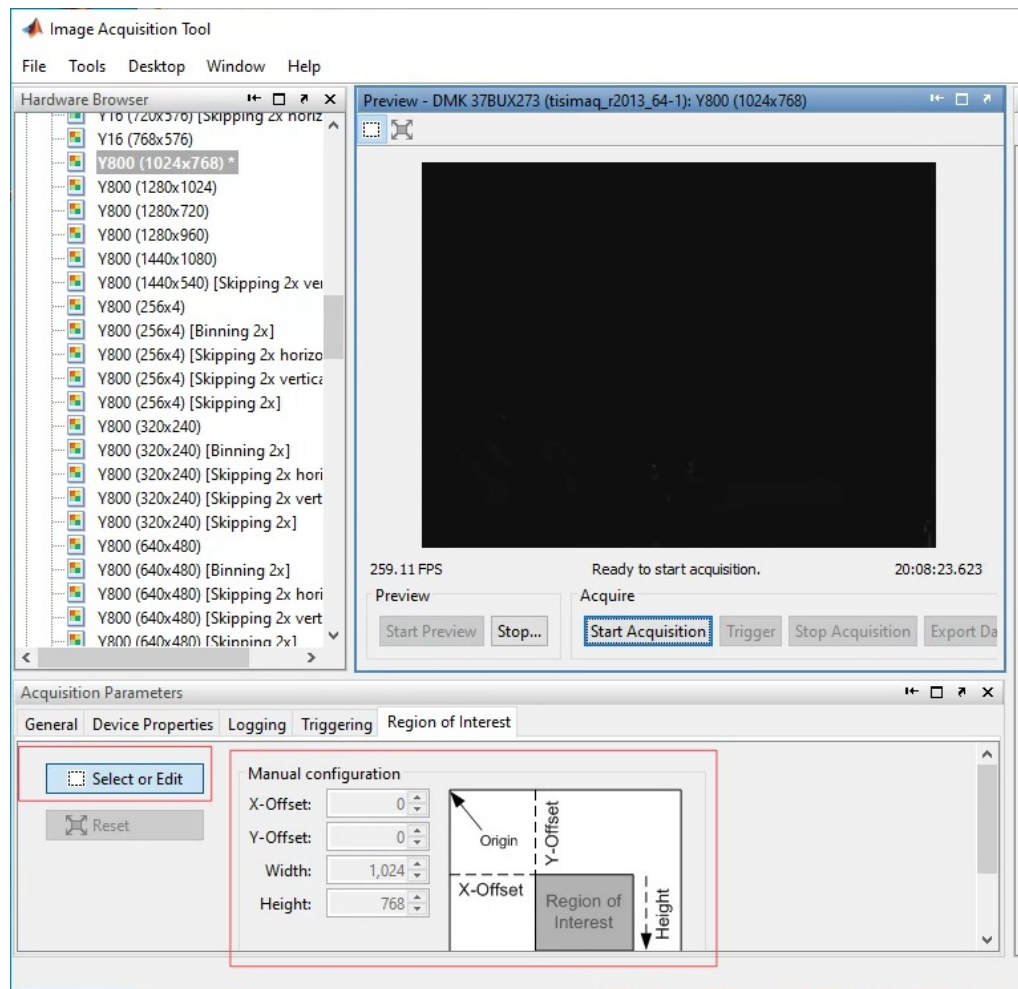
Ln 13, Col 19 Spaces: 4 UTF-8 LF Python

Open matlab 2021b. In the apps section, open “image acquisition” tool.



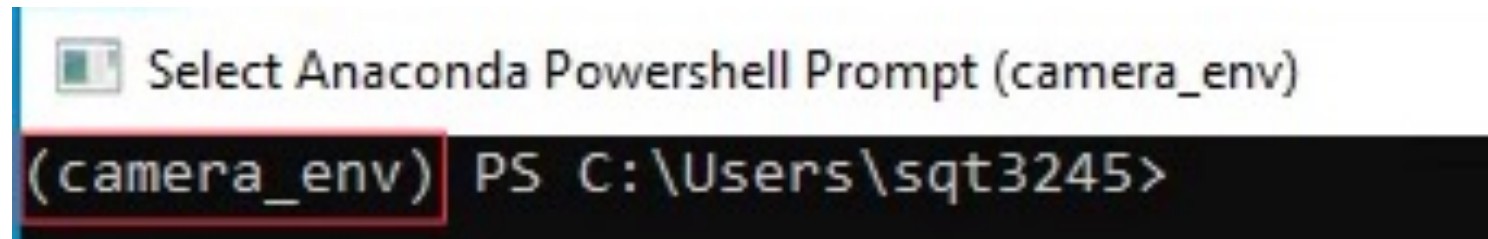
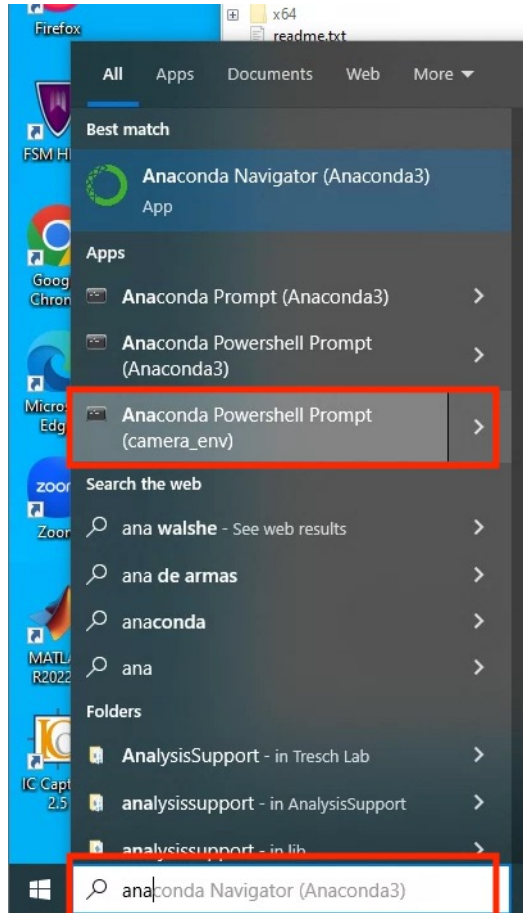


For each of the camera, select “Y800 (1024x768)”. Select the “Region of Interest” tab, then click “Preview”

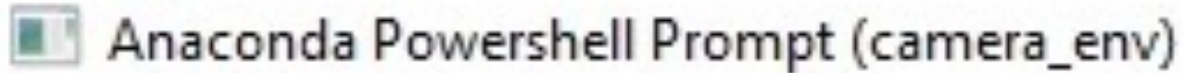


Adjust the field of view by click “Select or Edit” button. When done, record the “Manual configuration” parameters and translate them into the python script

Open Anaconda powershell and activate the “camera_env” environment.



Type “python write_camera_details.py” to run the script. Then run the camera script to verify the FOV changes

A screenshot of an Anaconda Powershell Prompt window. The title bar reads "Anaconda Powershell Prompt (camera_env)". The window has a dark background with a light blue border on the left. The command prompt shows the current directory as C:\Users\sqt3245 and the command "python write_camera_details.py_" is being entered.

Anaconda Powershell Prompt (camera_env)

```
(camera_env) PS C:\Users\sqt3245> python write_camera_details.py_
```