LabVIEW code

# Problems

* Kinesis has ceased to properly control the translation stage since adding the weight onto the platform. Could be a result of added weight or coding error introduced due to switching device controllers. The translation stage in kinesis does not home properly and isn’t able to move the desired length in either forward or backwards directions.
* LabVIEW 2020 conversion of the older “full scanner control” v2017 does not have the same VI’s and start up condition making the program unable to run. The source of the VI scripts is believed to be downloaded but does not appear in the library of the v2020 (uc480 scripts). This problem is only uniquely affecting the camera device and does not appear to affect the rotary or translation stage performance. Although the details of the construction of the VI is left out with the processes declaring the use of an VI at the start (unhelpful). The camera code works for the 2017 LabView code, therefore the idea was to use those scripts in the v2020 but it appears that it’s not currently possible. This may be due to lack of knowledge of LV. The NI webpages yield no examples or answers that immediately help with this, research on possible solutions is still on going.
* The motor controller code also did not translate over to this computer smoothly as there appears to be an external source the code used to work which is not on this computer.
* Config identifies the two separate devices as channel 1, did not pose a problem within LabVIEW’s 2017 code originally when running the devices.
* To create a sequence code/loop to perform the task in a repetitive discrete manner between the limits.
* V2017 LabView code for the camera, translation and rotary motor works (kinda), the problem becomes unresponsive after performing an action within the code. E.g moving the translation stage. And the translation stage isn’t accurately being controlled as the movement of the stage isn’t proportional to the codes’ instructions since the rotary motor was mounted.

# Possible solutions

* Strip the translation stage and test if the ode in the 2017 LabVIEW version or kinesis works. (last possible action, alignment of the optical path of the system has already been performed.
* Make a new VI structure (unknown). The Thorlabs guidelines for the ueye camera have been downloaded and is in the programs file under Thorlabs. Convert VI to newer version?

<https://www.ni.com/en-au/support/documentation/supplemental/09/how-to-upgrade-or-revert-a-vi-to-a-different-version-of-labview.html>

Possible solution!! Managed to ind the location of the uc480 VI programs on the computer.

C:\Program Files\Thorlabs\Scientific Imaging\DCx Camera Support\OtherDrivers\LabVIEW\For\_64-bit\_LabVIEW\64-bit\_uc480\_dotNET\_VIs\64-bit\_uc480\_dotNET\_SubVIs.

Although the LabVIEW program has begun to show similar problems to that of the v2017 were the program becomes unresponsive when an action is incurred. Therefore, this may have to do with adding additional weight. A solution would be to perform the code without the rotary motor to see if the programming code is working desirably or not.

* Find source from other computer in the lasers room and copy its sources onto the computer used for this device.
* Config should be noted if any channel errors or such occur in proceeding LabVIEW development.
* Convert the stepper motor code to 2017 version, with the working camera code.

# Biggest problem

-I got nothing.