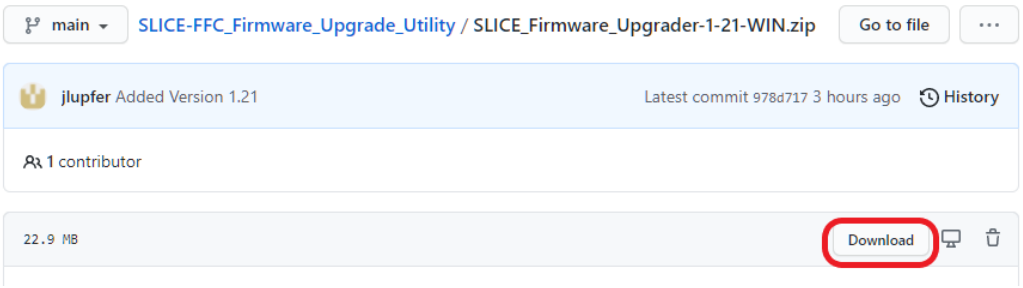
Firmware Update

From time to time Vescent will issue new releases of firmware for the SLICE products. Below are instructions on upgrading the SLICE firmware. Please follow these instructions carefully.
NOTE: The Firmware Upgrade Utility requires a Windows 10 PC with an available USB port and a connection to the internet.

	For SLICE-QT firmware versions 1.38 and lower, updating the firmware will reset all stored parameters (PID loop parameters, etc.). Before beginning a firmware update, manually record all settings for all channels. Versions 1.50 and higher will automatically store this information.

1. From SLICE-FFC_Firmware_Upgrade_Utility/SLICE_Firmware_Upgrader-1-21-WIN.zip at main · Vescent/SLICE-FFC_Firmware_Upgrade_Utility (github.com)
   Select Download and save **SLICE_Firmware_Upgrader-1-21-WIN.zip** to your PC



2. Unzip **SLICE_Firmware_Upgrader-1-21-WIN.zip** to a location of your choice on your PC.

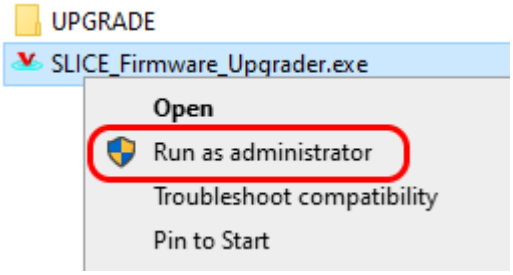
3. Connect a USB cable (type B) from the back of the SLICE unit to your PC

4. Power On the SLICE

5. Open Windows File Explorer and navigate to the folder where the **SLICE_Firmware_Upgrader-x-xx-WIN.exe** file was placed earlier

6. Launch the **SLICE_Firmware_Upgrader-x-xx-WIN.exe** application.

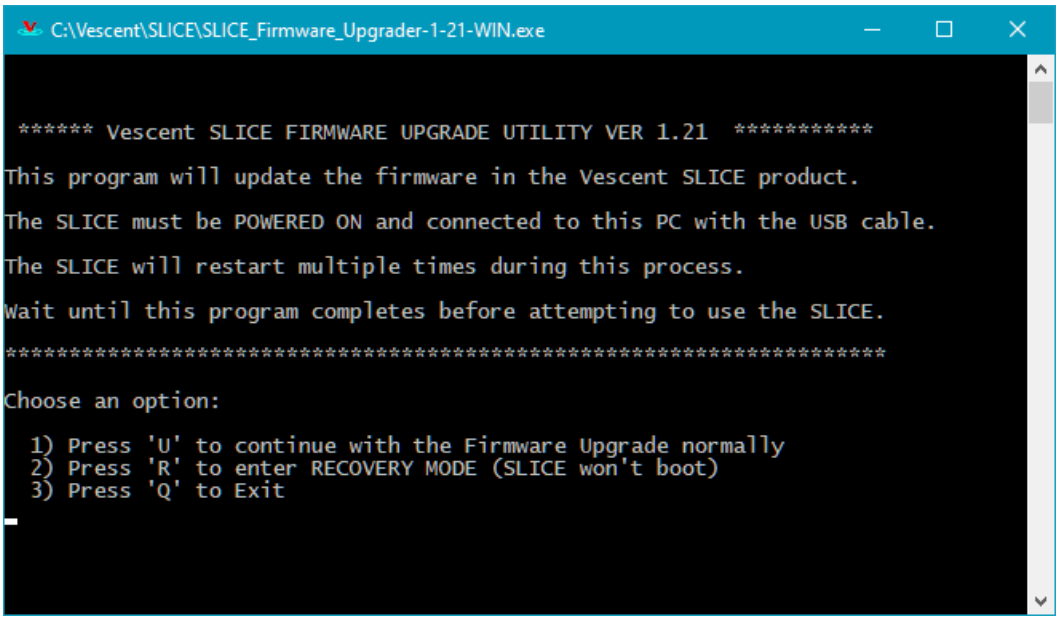
Note: The first time the upgrade utility is run, it needs to install a driver library to communicate with the SLICE in the Upgrade Mode.
Therefore, the **SLICE_Firmware_Upgrader-x-xx-WIN.exe** application must be launched as **administrator**.



Subsequent operation of the **SLICE_Firmware_Upgrader-x-xx-WIN.exe** application can be launched in regular user mode by simply double clicking on the filename in Windows File Explorer.

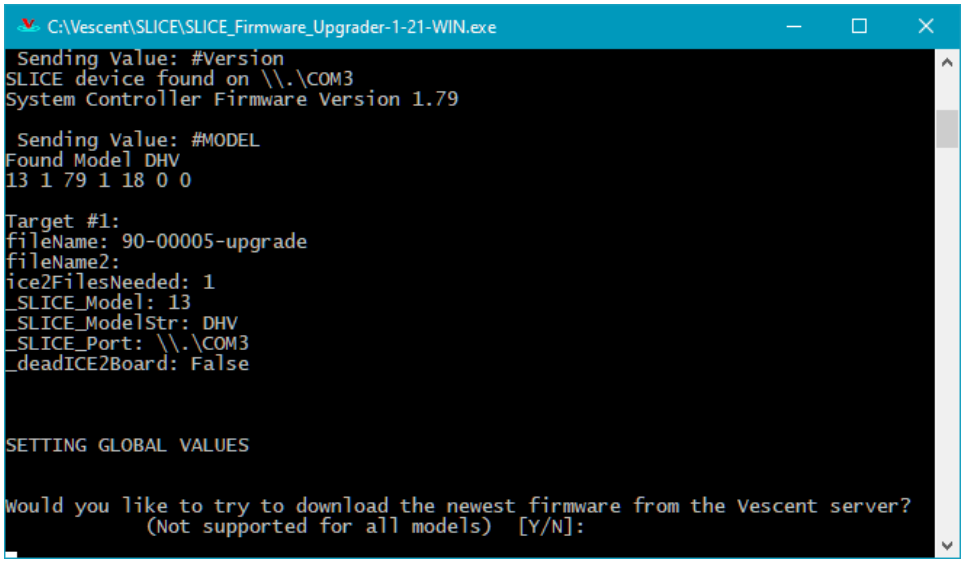
7. Follow the prompts in **SLICE_Firmware_Upgrader-x-xx-WIN** application to complete the upgrade process.

	Please follow firmware update instructions carefully.
	During the upgrade, do not turn off, disconnect, or unplug the SLICE.



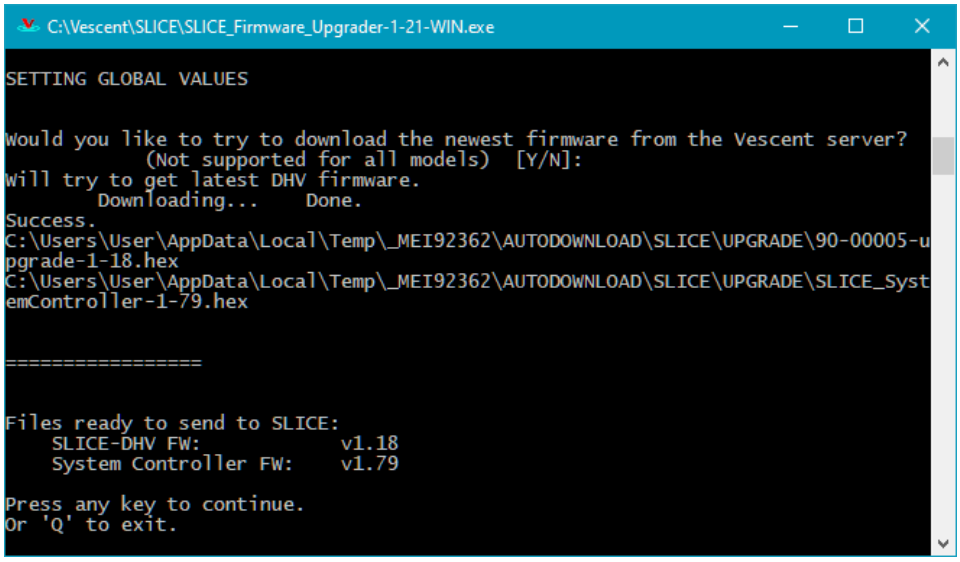
Select ‘U’ to do a normal upgrade.

1. The Upgrader will scan the com ports on the PC to find the attached SLICE device(s).



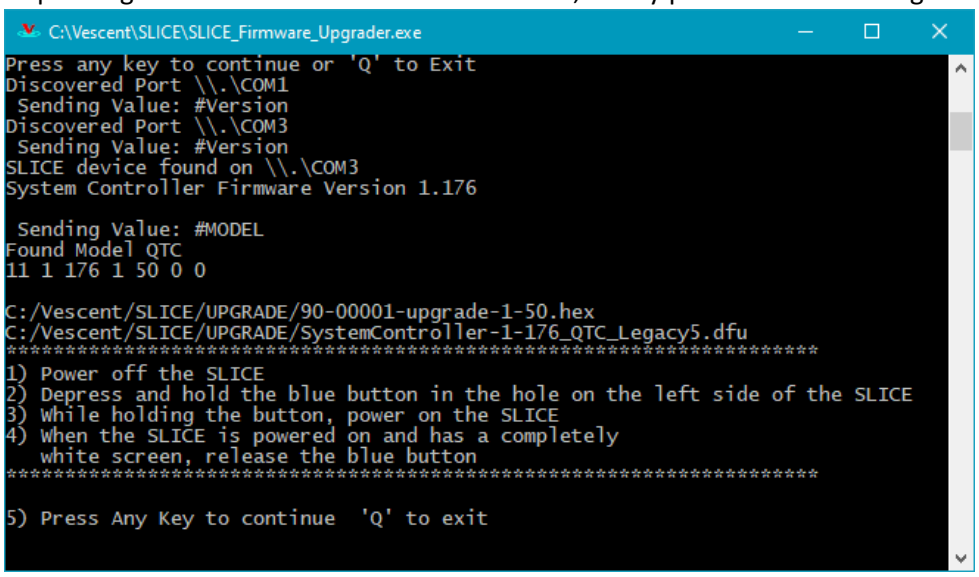
Select ‘Y’ to have the Upgrader download the latest released firmware for your device.

2. The Upgrader will report the firmware versions downloaded for your device



Press any key to continue.

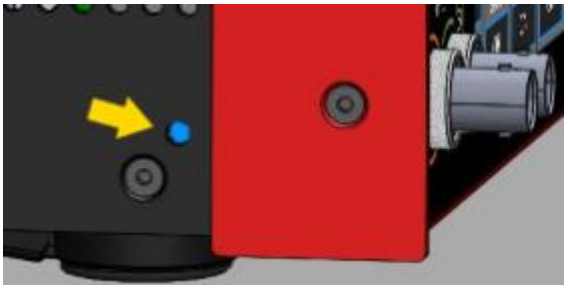
3. Depending on the current firmware in the SLICE, it may present the following instruction screen.



Before continuing:

i Power off the SLICE

ii Depress and hold the blue button on in the hole on the left side of the SLICE

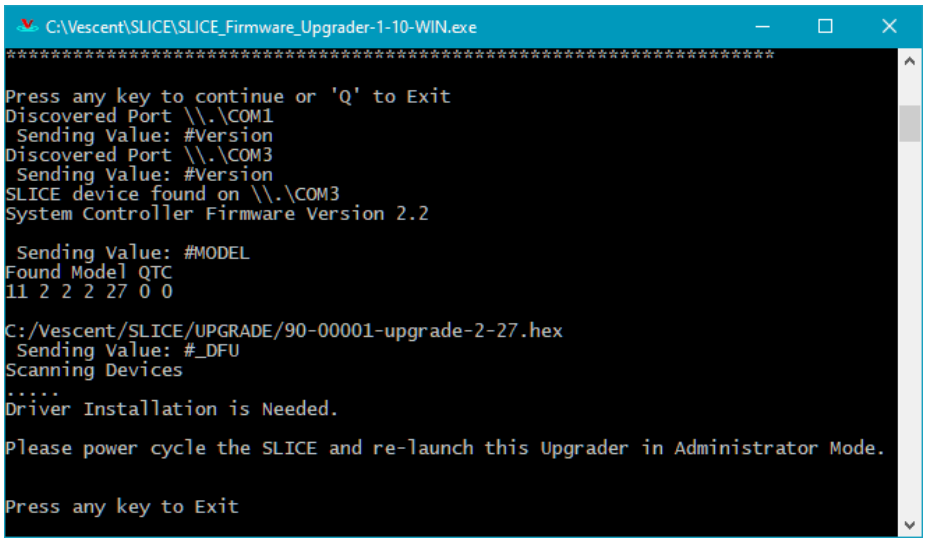


iii While holding the button, power on the SLICE

iv When the SLICE is powered on and has a completely white screen, release the blue button.

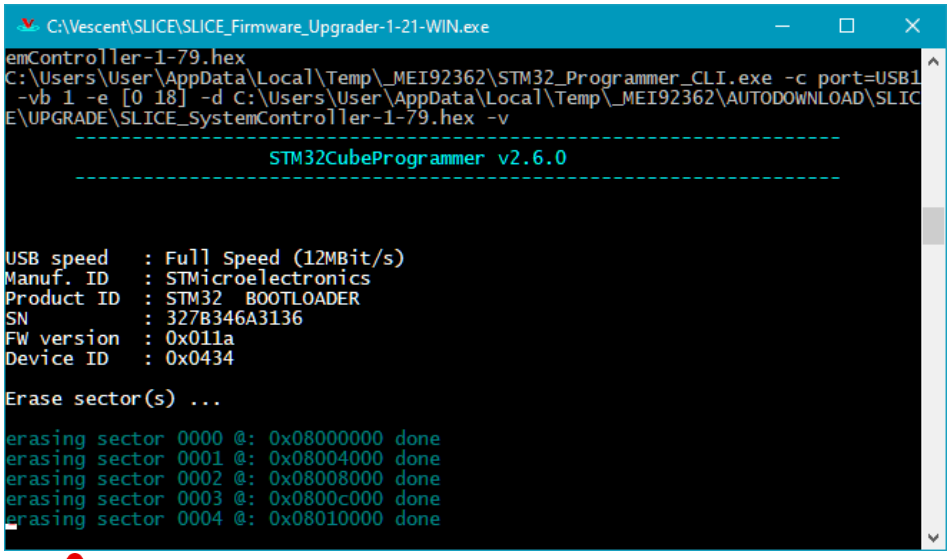
v Press Any Key to continue the process

4. Driver Installation (Only occurs on the first upgrade performed a particular PC):
If this screen message appears, press Any Key to exit. Power Cycle the SLICE and restart the **SLICE_Firmware_Upgrader-x-xx-WIN.exe** application in Administrator Mode.



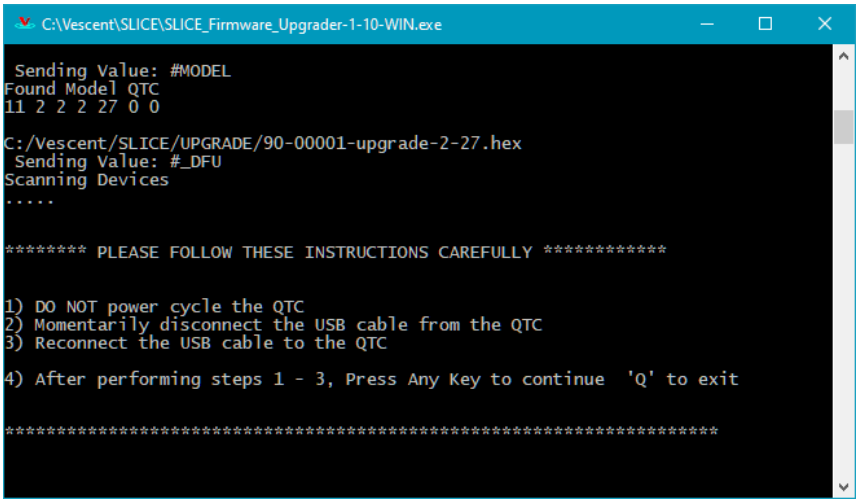
5. Once the driver is installed, the upgrade process will continue.

6. The System Controller firmware will be upgraded First
DO NOT turn off power on the SLICE or touch the touchscreen during this process.

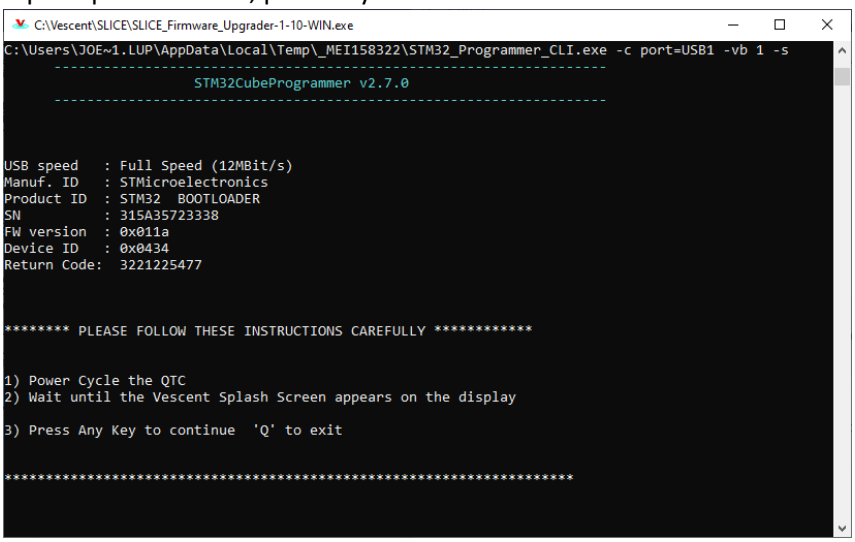


NOTE: Some Windows 10 PCs may exhibit behavior that will require additional steps.

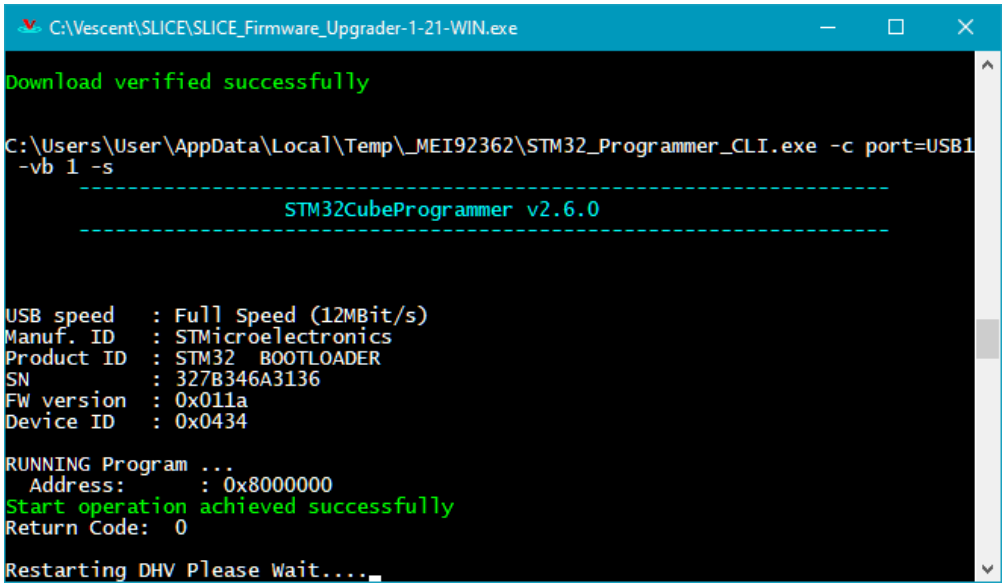
i If prompted to do so, unplug then replug the USB cable.



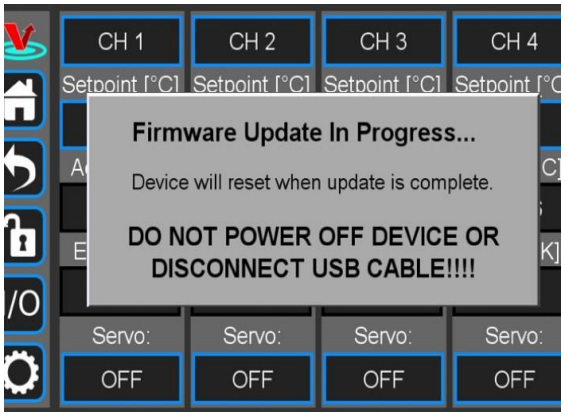
ii If prompted to do so, power cycle the SLICE



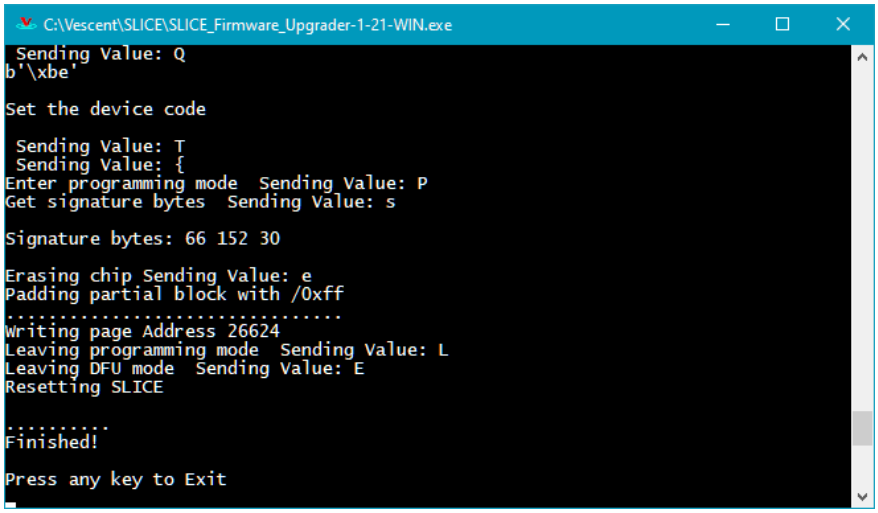
7. When the System Controller Firmware upgrade finishes, the SLICE will Reboot.
DO NOT cycle power on the SLICE or touch the touchscreen during this process.



During this half of the process, the following message will appear on the SLICE touchscreen.



8. The Upgrade is finished when the **SLICE_Firmware_Upgrader-x-xx-WIN** application restarts the device for the final time and shows the following screen



9. Troubleshooting:
   Some USB ports will not work with the upgrade utility. If the upgrader repeatedly fails, try connect it directly to a USB port on the PC bypassing any hubs or docking stations.