# Firmware Update

From time to time Vescent will issue new releases of firmware for the FFC products. Below are instructions on upgrading the FFC firmware. Please follow these instructions carefully.
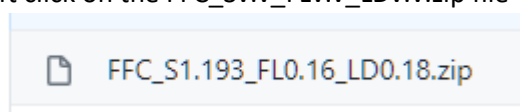
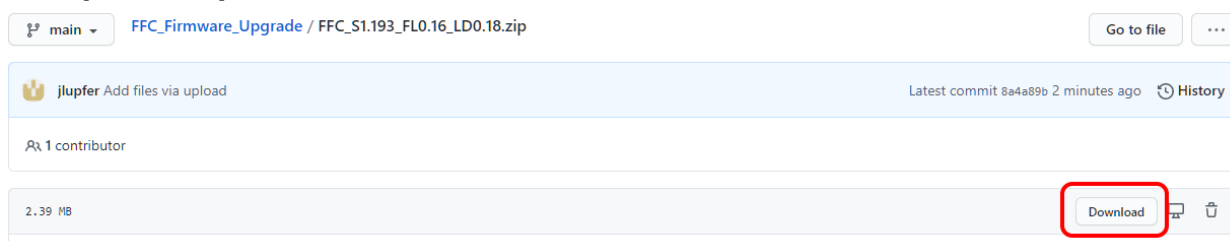1) Create the following folder on your PC
   **C:\Vescent\SLICE\UPGRADE**

2) Copy the latest Upgrade Package from the GitHub website
   [https://github.com/Vescent/FFC_Firmware_Upgrade](https://github.com/Vescent/FFC_Firmware_Upgrade)

   a) Left click on the FFC_Sv.v_FLv.v_LDv.v.zip file

   
   FFC_S1.193_FL0.16_LD0.18.zip

   b) Select [ Download] to download the file

   

   c) Unzip the Upgrade Package into the folder created in step 1. There will be four files in the zip file.
      i)    SystemController-x-xxx_Comb.dfu
      ii)   SystemController-x-xxx_Comb.hex
      iii)  90-00011-upgrade-x-xx.hex
      iv)   90-00012-upgrade-x-xx.hex
            Where :
            **x-x** is the version number of the firmware.
            **NOTE**: **DO NOT RENAME THESE FILES!!**
            **NOTE: MAKE SURE THERE ARE NO OTHER FILES IN THIS DIRECTORY.**

3) Obtain the Vescent FFC_Firmware_Upgrade_Utility from:
https://github.com/Vescent/FFC_Firmware_Upgrade_Utility
**NOTE:** If you have used previous Vescent firmware upgrade utilities on your PC, please follow the instructions in the **Removal_Of_Previous_DFU_Driver_Instructions.docx** document at
https://github.com/Vescent/FFC_Firmware_Upgrade_Utility
before proceeding with the upgrade.

4) Extract the **SLICE_Firmware_Upgrader-x-x-WIN.exe** file from the **SLICE_Firmware_Upgrade_Utility-x.x-WIN.zip** file to a location of your choice on your PC

5) Connect a USB cable (type B) from the back of the FFC unit to your PC and power on the FFC.

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

| ⚠ | Please follow firmware update instructions carefully. |
|---|---|
| | During the upgrade, do not turn off, disconnect, or unplug the FFC. |

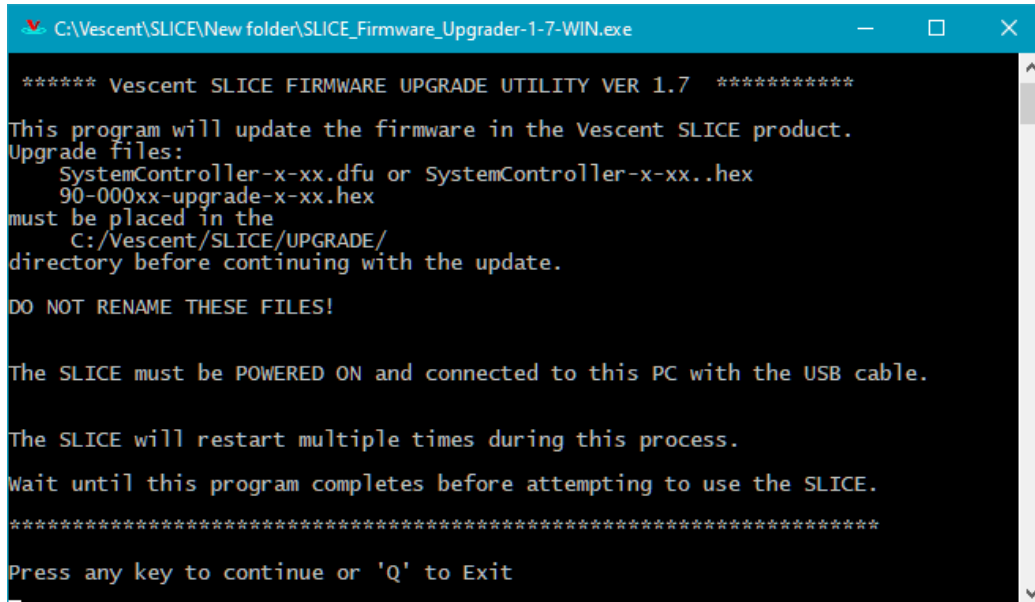7) Launch the **SLICE_Firmware_Upgrader-x-x-WIN.exe** application.

⚠ **Note: The first time the upgrade utility is run, it needs to install a Device Driver to communicate with the FFC in the Upgrade Mode.**

Therefore, the **SLICE_Firmware_Upgrader-x-x-WIN.exe** application must be launched as **administrator**. Right click on the **SLICE_Firmware_Upgrader-x-x-WIN.exe** application in Windows File Manager and select "**Run as administrator**"
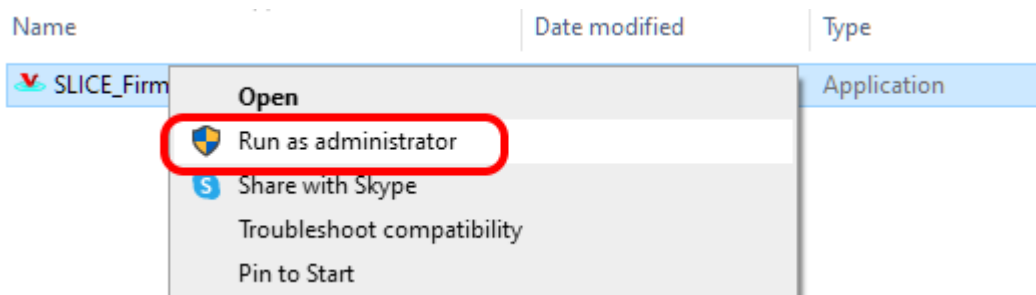


Subsequent operation of the **SLICE_Firmware_Upgrader-x-x-WIN.exe** application can be launched in regular user mode by simply double clicking on the filename in Windows File Explorer.

8) Follow the prompts in the **SLICE_Firmware_Upgrader-x-x-WIN** application to complete the upgrade process.

    a) Verify that the upgrade files are placed in the **C:\Vescent\SLICE\UPGRADE** folder and press Any Key to continue.



    b) The Upgrader will scan the com ports on the PC to find the attached FFC device.
       It will proceed with the upgrade process.
       **NOTE:** The FFC will restart itself 4 times during the upgrade process.
       **Do Not power cycle or attempt to interface with the touch screen during the upgrade.**

    c) When the following screen appears, the upgrade is complete. Press any key to exit the upgrader application.