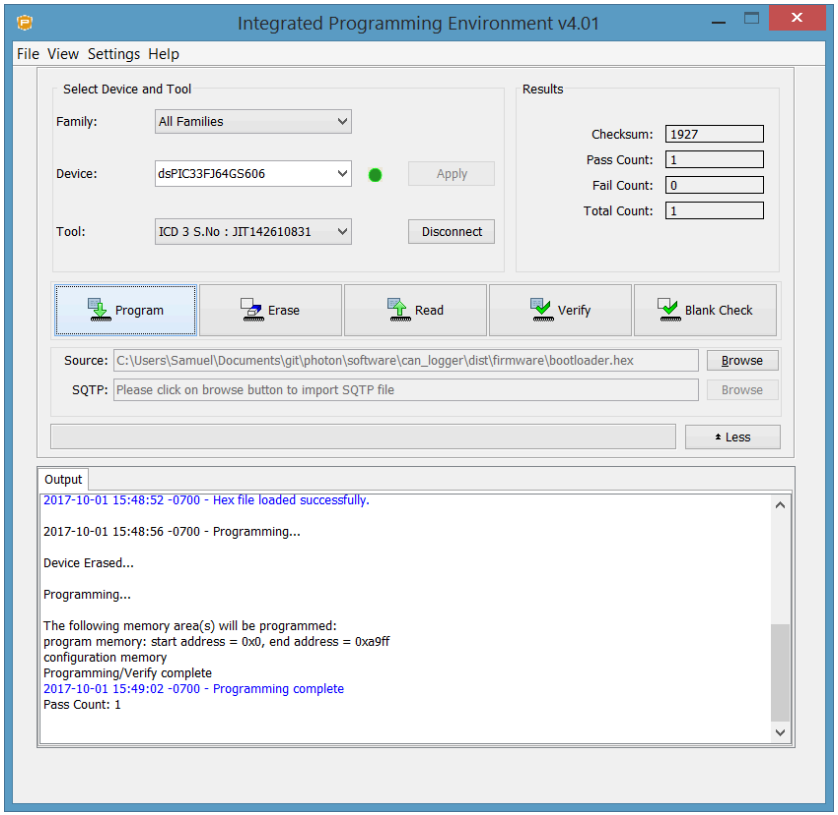
Step 1 - Gather Materials and Software

1. Windows Laptop
2. Clean workspace, free of dust and potential conductive debris - to maintain seal integrity when re-closing and prevent shorts due to FOD
3. IPA and clean wipes or cotton swabs
4. MPLAB-X IDE - (warning - 600MB download) or MPLAB 8.92 (older software but smaller downloader)
    a. Don't bother installing the compilers or assemblers - all we need is the device drivers and the ability to run the programming tools
5. CAN Logger 1.1 or newer with bootloader firmware
6. Microchip ICD3 ICD4 or PicKit3 plus short, standard 6P6C style phone adapter cable
7. 2mm hex drive bit
8. #1 Phillips screwdriver
9. Small parts container for screws
10. Low torque torque wrench (preferred)
11. Loctite 222 (preferred)

Step 2 - Remove Case

1. Remove 4x #3 x ⅜” Threadforming Screws that secure case to main connector.
2. Remove 14x M3x8mm FHCS that secure plastic case onto baseplate.
3. Carefully lift case up ~25mm. O-ring seal should stay with the plastic case, ensure that it’s not stuck down to the aluminum baseplate
4. Unclip two LED internal harnesses - there’s a small white tang that holds the connectors in place. **Take note of which connector goes to which socket.**
5. Set case aside in a place where it will not get dust or debris into the seal

Step 3 - Reprogram Bootloader Firmware

1. Plug 6P6C connector into black right angled jack on the side of the PCB
2. Instructions for flashing firmware if you went the MPLAB 8.92 route:
    a. http://www.dilithiumpower.com/products/photon-1/loading-firmware
3. Instructions for using MPLAB X
    a. Open IPE (Integrated Programming Environment)
    b. Select Family: 16-bit DACs (dsPIC33)
    c. Select Device: dsPIC33FJ64GS606
    d. Load Hex File (File -> Import -> Hex -> firmware/bootloader.hex)
    e. Click connect (to connect to your programmer - the tool might update the firmware on your programmer here)
    f. Once the programmer is loaded, click Program to load the hexfile onto the device.
    g. 

Step 4 - Reprogram Application Firmware

1. Follow process here for reloading application firmware to ensure everything is operating properly before closing the device.
2. Application Firmware Reprogramming Instructions

Step 5 - Button Up

Install Case onto Baseplate

Parts:
1x Photon 3.1 Case with LEDs installed
1x Photon 3.1 PCBA / Base
14x M3x8 Blue FHCS
4x #3 x 3/8" Threadforming Screws

Procedures:
Clean seal area on aluminum base with IPA and cotton swabs
Inspect case-side seal and ensure there is no FOD sticking to it.
Position case over base/pcba and plug in LED cables
Apply Loctite 222 onto each FHCS
Install each screw lightly without fully seating until all are installed
Tighten each FHCS to 1.0Nm (8 inchpounds)
Install #3 Screws into connector with phillips screwdriver
(be careful to not overtighten and strip out plastic housing)

Tools:
Torque Wrench
2mm hex bit
#1 Phillips driver

Materials:
Loctite 222
IPA, Cotton Swabs

Quality Checks:
Double check torque on each screw

