Teensy 4.1 Firmware Setup Guide

1.) Buying the Teensy 4.1

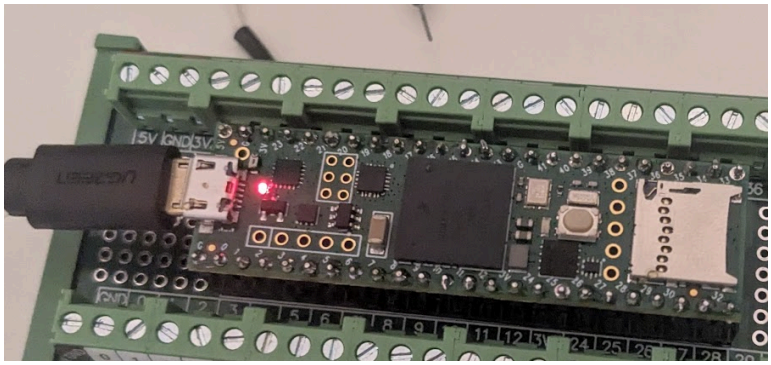
a.) These were best two options found on amazon:

- Fast shipping in US, but requires soldering of header pins (one I bought): link
- Slow in US, but no soldering required: link

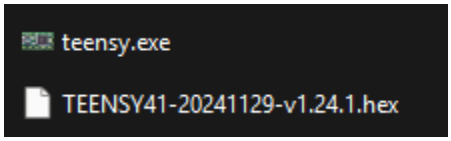
2.) Installing Micropython (for Windows)

a.) Plug your teensy into your computer using a micro usb cable. Ensure cable supports data transfer and not just charging (should make a beeping noise when you connect)

b.) Then press the small yellow button on the top to put the teensy in bootloader mode, this will turn on a red light like this:



c.) Locate the micropython_install folder in google drive, and download and extract files. You should have this:



d.) Right clicking teensy.exe to make this GUI appear

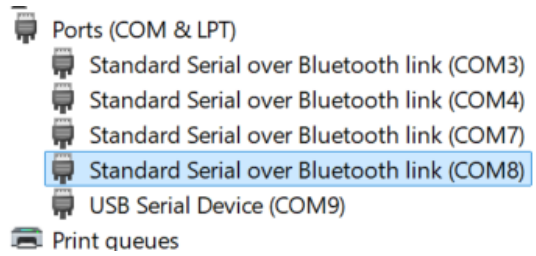
e.) Select file -> open -> TEENSY41-20241129-v1.24.1.hex

f.) Then select Operation -> Program. The GUI should say download complete

3.) Figuring Out COM port

a.) Open Device Manager -> expand Ports (COM & LPT).

You'll see a list of ports in use. Example my computer:



b.) Un-plug and replug usb cord, whatever device disappears and re-appears is your teensy. In my case this was COM9

c.) Take note of which port your using, for the rest of the guide replace COM9 with your COM port

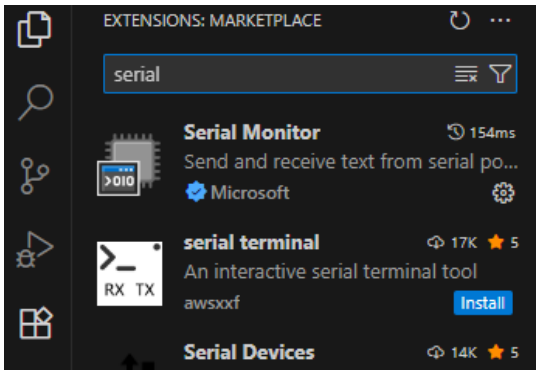
3.) Setting Up VS Code

Note: I chose VS Code for development as it is very popular and I assume most of us have experience with it. I also have talked to multiple embedded software developers who use VS Code for their work. However I am not very knowledgeable about IDE's and open to other suggestions.

a.) Make sure you have VS Code and Python is installed, if not follow this instructions:

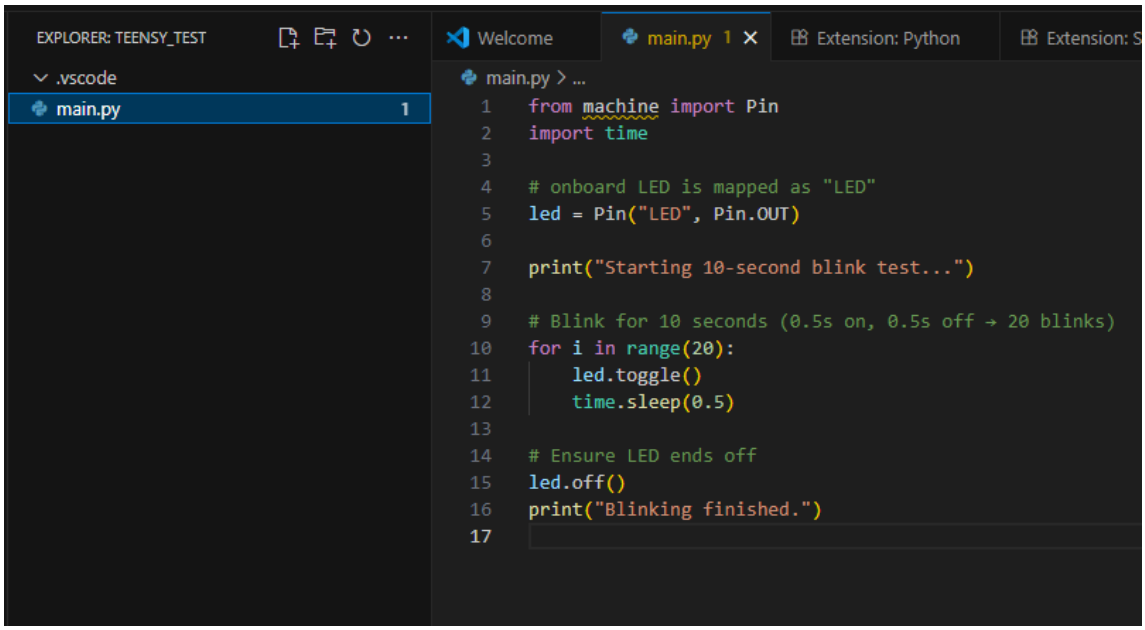
- https://code.visualstudio.com/
- https://www.python.org/downloads/windows/
    - Make sure "Add Python to PATH" is checked during install.

b.) In VS Code, make sure you have the python extension and serial monitor extensions by Microsoft installed. Can add extensions by selecting the 3 block symbol in the top left corner.



c.) Download and extract teensy_test from the google drive

d.) Select File -> Open Folder -> teensy_test. You should see the main.py with code that causes the built in Teensy LED to blink for 10 seconds



e.) From the top left select Terminal -> New Terminal, in cmd line enter (remember to replace COM9 with your COM):

pip install mpremote
mpremote connect COM9 cp main.py :main.py
mpremote connect COM9 reset

The teensy should start blinking and your done!