

Loading Caveatron Firmware

2020-01-30

Software Required:

- **TyCommander** – GUI portion of the open source TyTools, a small lightweight application for interfacing with a Teensy processor and loading pre-compiled firmware without needing the Arduino/Teensyduino IDE.

Precompiled versions TyTools for Windows and Mac can be found on Github here:

<https://github.com/Koromix/tytools/releases>

- **Caveatron_v2xx.hex** – The Caveatron firmware file to load. This is provided on Github as a .zip file and must be unzipped first.

Additional for Windows 7 & 8:

- **serial_install.exe** – This installs the driver to communicate with the Teensy Board. This is not required for Windows 10 or Mac OS which recognize the Teensy natively. This installer can be found on the official PJRC Teensy site here:
http://www.pjrc.com/teensy/serial_install.exe

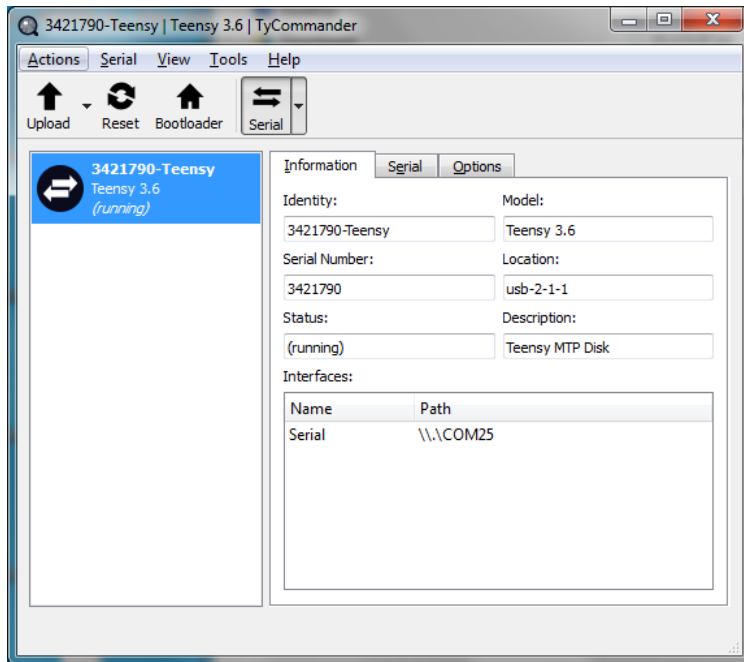
Instructions

Step 1 (Windows 7 & 8 only): Install Teensy drivers by running serial_install.exe. (Note: After the install appears to complete successfully in Windows 7 a Windows error message may appear stating that the drivers had a problem and need to be reinstalled. This message can be ignored.)

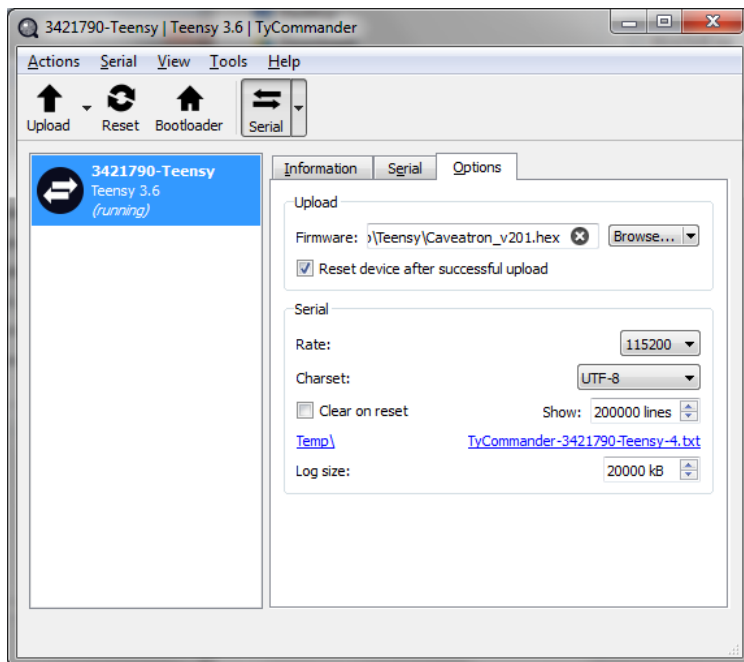
Step 2: Install TyTools

Step 3 Connect the Caveatron (or the Teensy board directly) and power it on. Note: On Windows 7, after plugging in the Caveatron and Windows trying to load the driver, a message indicated that the drivers did not install correctly. This can be ignored. You can verify that the driver is in fact loaded by going to Windows Device Manager -> Ports (COM & LPT) and verifying that there is an entry for "Teensy USB Serial (COMxx)" – this will only appear if the Caveatron is connected and powered on.

Step 4: Run TyCommander. It will automatically connect to the Caveatron/Teensy and you will see a screen like the one below if it connected successfully. If the area to the left is blank and does not show a Teensy board, it did not connect. Note that you have to have the Caveatron powered on and connected before running TyCommander. If the icon on the left side for the Teensy board is a color other than the black icon shown in the screenshot, do not try to load the firmware.



Step 5: Select the Options tab in TyCommander and you get the screen shown below. To the right of the Firmware line, click Browse and choose the correct Caveatron firmware .hex file. Leave all other settings as default and be sure "Reset device after successful upload" is checked.



6. Click the Upload button at upper left. Loading will proceed and then the Caveatron should automatically reboot.

7. Verify on the Caveatron that the new firmware is loaded and then you are done.