Combat Bots Board – Programming Guide

The Combat Bots PCB (CB PCB) is based around the Raspberry Pi Pico's RP2040 microcontroller. Further guides and tutorials can be found online regarding the Pi pico.

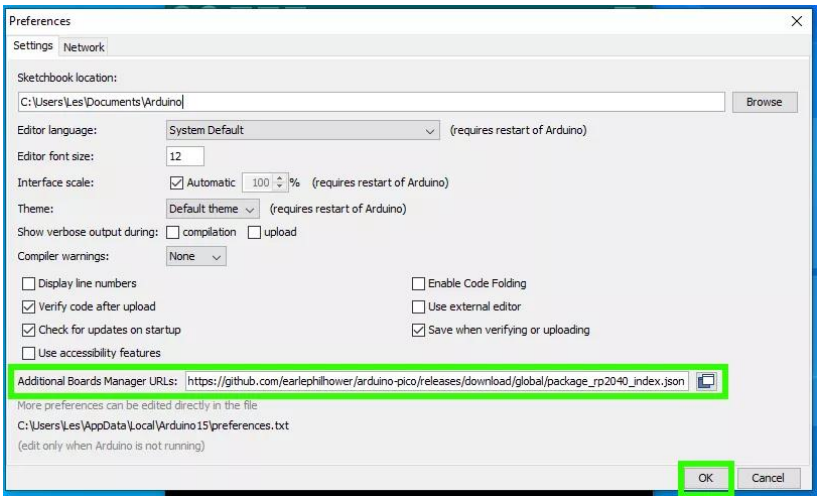
1. Open the CombatBots_v2040.ino Arduino file.

This can be found here: GitHub: https://github.com/migi1232/CombatBots_v2040

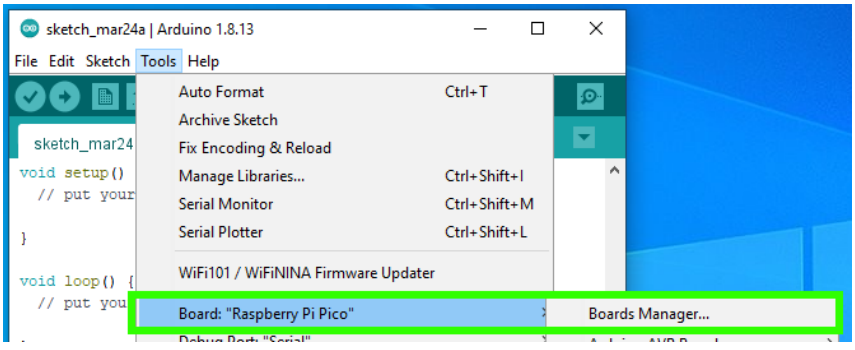
2. Open the Arduino application and navigate to File >> Preferences.

3. In the additional boards manager, add this line and click OK. –

https://github.com/earlephilhower/arduino-pico/releases/download/global/package_rp2040_index.json

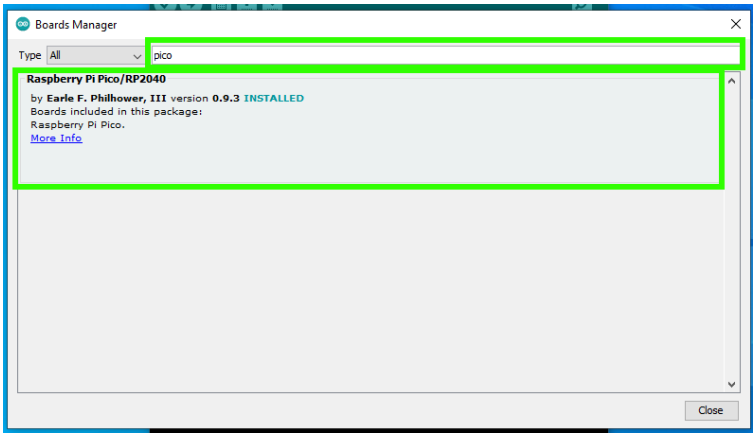


4. Go to Tools >> Board >> Boards Manager.



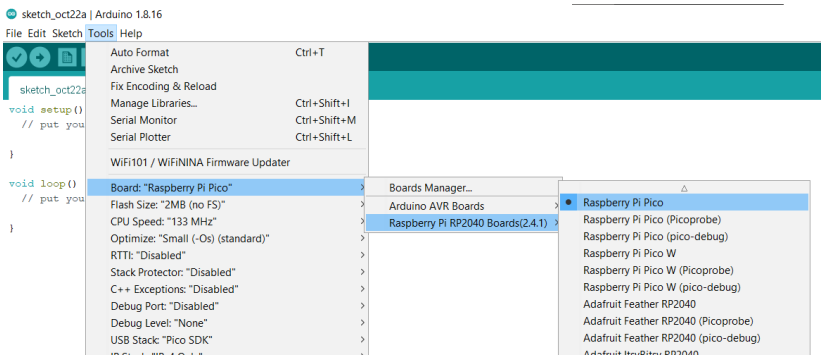
Type "pico" in the search box and then install the Raspberry Pi Pico / RP2040

MAKE SURE IT IS THE VERSION BY *Earle F. Philhower*



Install the latest version of the library.

5. Go to Tools >> Board >> Raspberry Pi RP2040 Boards and select Raspberry Pi Pico.



6. Connecting the CB PCB to a USB port on the PC.

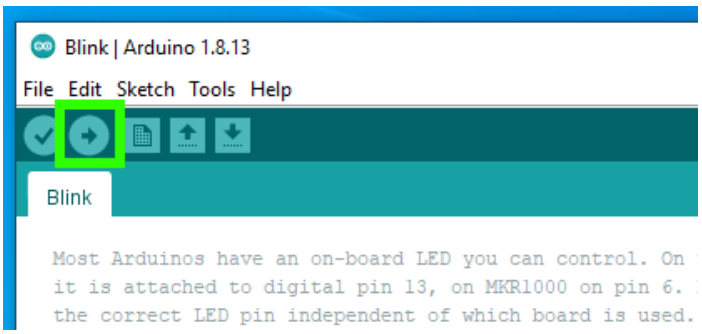
On the first time programming the CB, BEFORE connecting the USB cable to the CB PCB, hold down the BOOT button and THEN insert the USB cable.

This will initialise the CB PCB as a mass storage device.

When in mass storage mode, the COM port will not be available. This is normal.

7. TO PROGRAM:

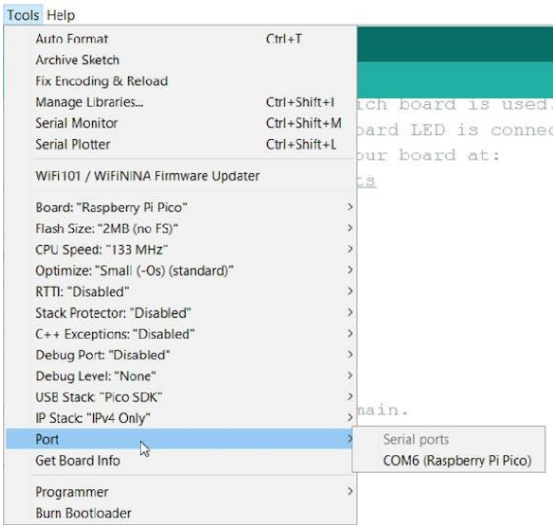
Compile the Arduino sketch and then press the UPLOAD button.



After this, the program will be loaded.

The board will now no longer show up as a mass storage device and a COM port will be able on the Arduino IDE.

When programming in the future, the BOOT button will not need to be pressed when connecting the USB cable.



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