

UnBricking your Sparkfun Pro Micro

When a new Pro Micro is plugged into a USB port the Power light will turn on and the Serial light will blink. If the Serial Light does not blink, your Pro Micro is “bricked” and the Arduino app will have a hard time seeing the port when you try and reprogram it.

This happens when the Pro Micro is programmed to act as an HID serial device, such as USB MIDI. The same serial port is needed to enter new programs, but it is busy acting as an HID serial port.

It is possible to “un-brick” your Pro Micro but it might take many tries and lots of luck and timing. Make sure no other program is using the Pro Micro’s USB port and make sure that the proper board settings are selected under the Arduino program’s TOOL menu. Do not use the Serial command object with the Arduino Micro; use the Arduino Uno or Mini which don’t have this problem. In fact, it is best to hook your sensor first to an Uno or Mini while you are developing the program and adjusting sensor values.

Here are some methods to try:

1. Disconnect the USB to the Pro Micro. Start the download with it disconnected. Re-connect the USB after the code verify is finished and the download starts.
2. Reset the Pro Micro by momentarily connecting ground to the Reset Pin. Then start the Load. You can repeatedly check under the menu TOOLS/PORT to see if the Pro Micro serial port shows up to allow program downloading.

If this is not working try unplugging and plugging in the USB cable and/or restarting the Arduino programming app.

3. In your code for the Pro Micro, under “Setup”, start with a

delay(3000)command to give anyone reprogramming it three seconds to start a download before the already loaded program takes over the serial line. That's the theory, anyway.

4. If you are using TeeOnArdu as your board selection. You will probably have more luck unbricking the ProMicro by choosing the ProMicro in the board selection and loading a short and simple program like "Blink" that doesn't use the serial port at all. Once it is unbricked go back and load your desired program. Hold GND to the Reset line while starting the "Load". Don't let go of the grounded Reset until well into the "loading". You can tell it is loading from the blinking leds.