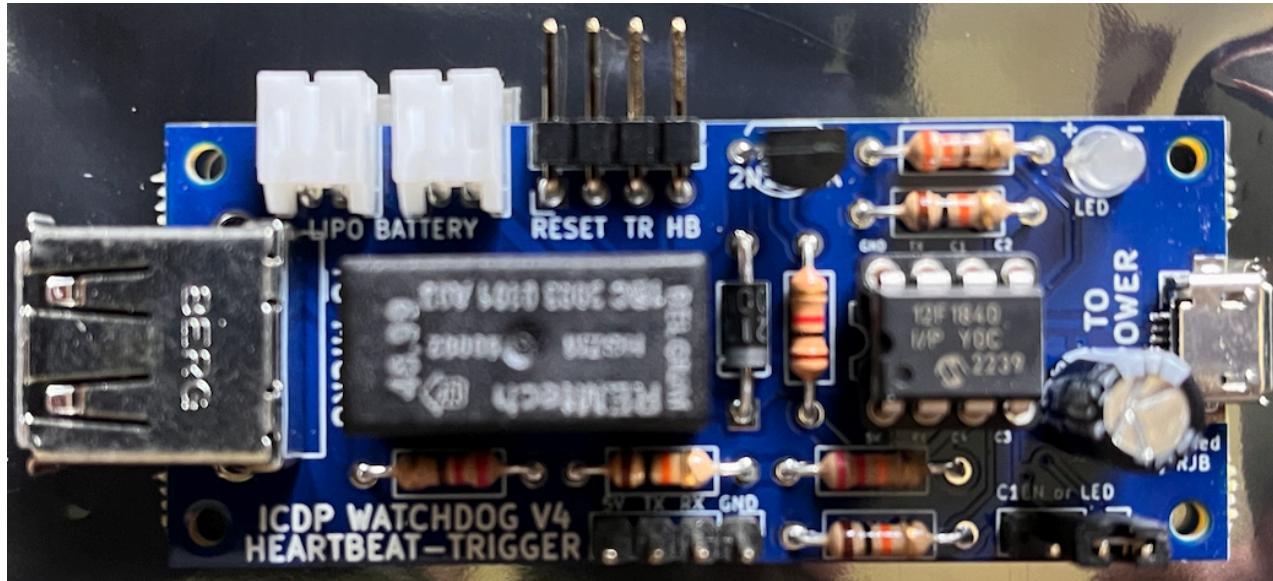


Watchdog Programming and Testing



Ready Laptop (Windows 10 with PICAXE Editor 6 Installed)

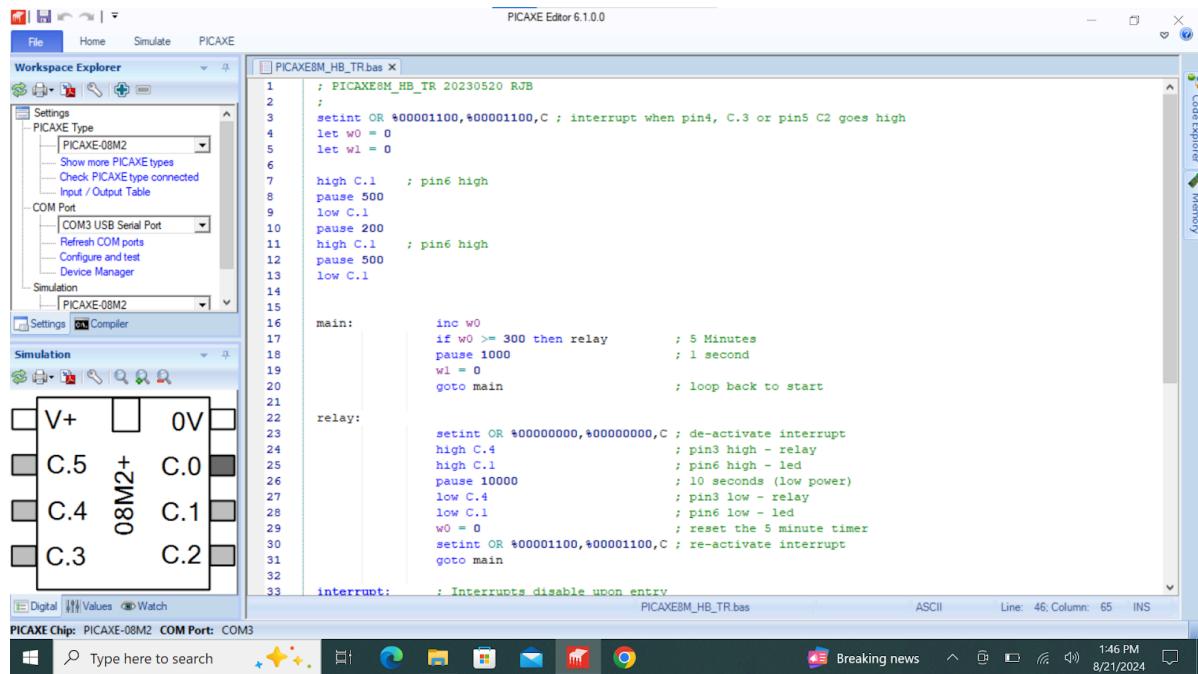
- Connect the USB Serial programming cable (USB2 to DB9) to the computer's USB port
- Connect USB2 to micro USB cable to the computer's 2nd USB port.
- Login to laptop
 - Username: icdp
 - Password: To be provided outside this document

Start PICAXE Editor and Configure

Select icon on bottom toolbar that is red with computer chip

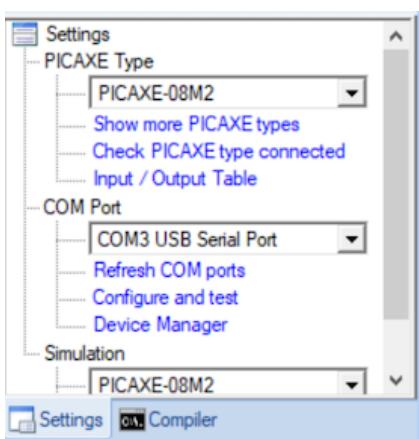


PICAXE Editor Window



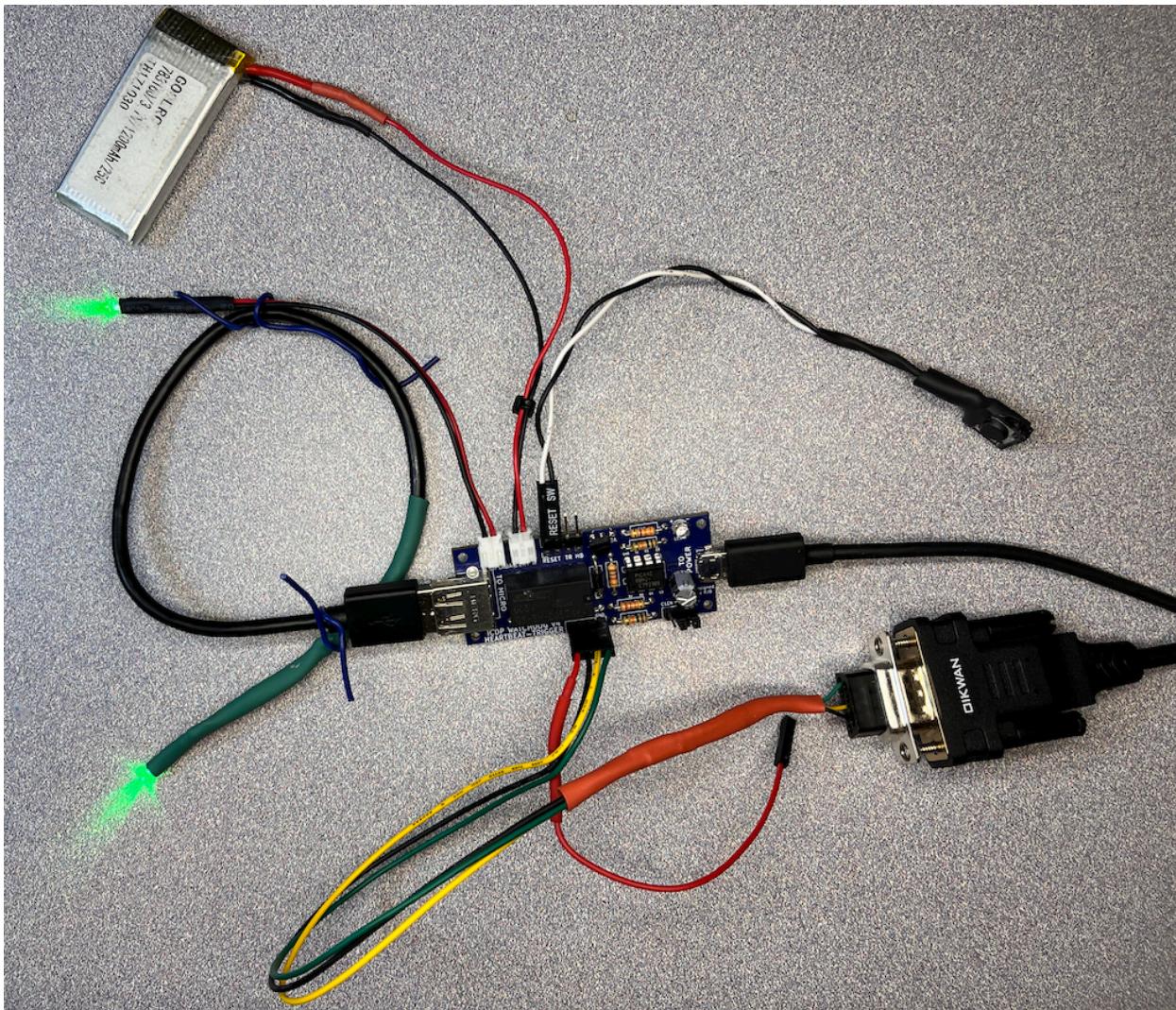
Under the PICAXE Editor

- Open program to be programmed.
File -> Documents -> PICAXE Programs -> PICAXE8M_HB_TR
- On the left side in the PICAXE Editor setting window



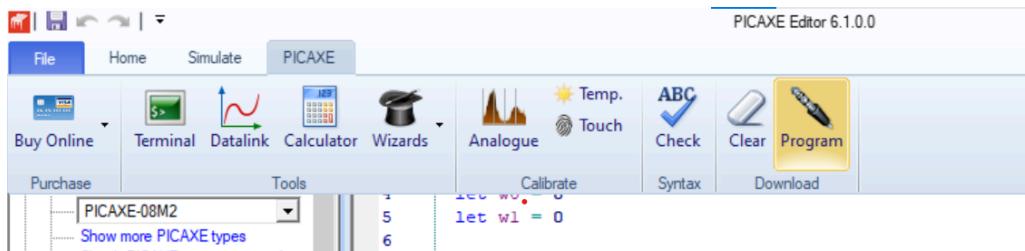
- Check if there is a COM USB Serial Port shown in the pull down box. If not Click Refresh COM Ports. Then select COM port.
- Check if the PICAXE Type is set to "PICAXE-08M2". If not, then select it.

Connect Programming and Test Cables to WatchDog Board



- Add a jumper to the right 2 pins of the 3 pin header on the lower right marked "C1EN or LED".
- Connect the "USB to LED" cable to the Board's USB2 connector marked as "TO MICRO"
- Connect LiPo Battery to Board's connector marked as "BATTERY"
- Connect "JST 2 pin connector with LED" cable to Board's connector marked as "LIPO"
- Connect "Connector to Button" cable to Board's pins marked as "RESET"
- Connect the 4 wire header from the USB Serial programming cable to board's programming pins marked as "5V TX RX GND".
 - The side of the 4 wire header with the red unconnected wire will be to the left.
- Connect the "USB2 to micro USB" cable to the Board's micro usb connector marked as "TO POWER"

Programming the WatchDog Board

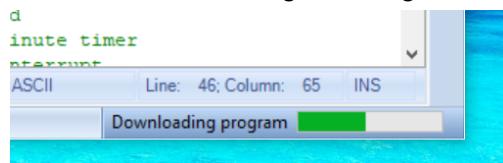


From the PICAXE Editor

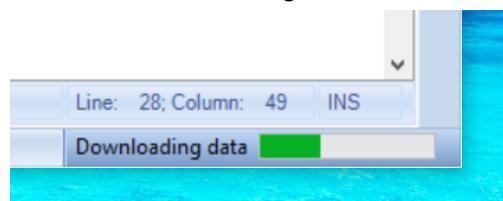
- Select the PICAXE tab at the top.
- Select Program

If the usb connected WatchDog is found, programming should begin. The lower right will show progress.

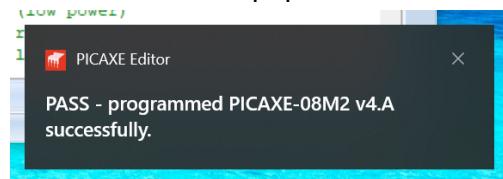
Pass 1 is downloading the Program



Pass 2 is downloading the Data



Success Result Popup



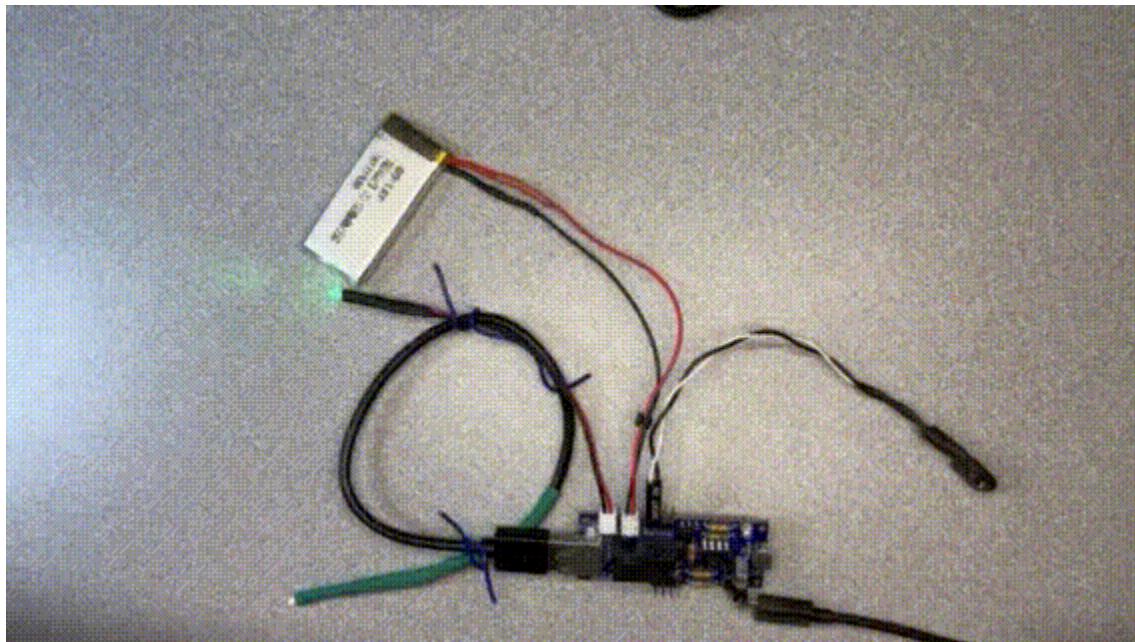
When programming completes, the board initializes and blinks the on board LED two times.

If you see a popup "Error: Hardware not found on COMx!" then recheck COM Port settings.

Testing the WatchDog Board After Programming

Unplug the programming cable from pins marked as "5V TX RX GND".

Both externally connected LEDs should be on. The board's LED should be off.



Press the Reset button.

- The 2 external LEDs connected should go out for 10 seconds and the board's LED should come for the same period of time.

Remove usb cable from the board's micro usb port labeled "TO POWER"

- The external LED to the USB2 connector should go out.

Plug cable back in.

- Board's LED should blink 2 times when the cable is plugged back in and the both externally connected LEDs should be on.
- Press the Reset button
The 2 external LEDs connected should go out for 10 seconds and the board's LED should come for the same period of time.

If the above has performed successfully, then the programming and testing is complete.

Additional WatchDog Test. (Not Required)

If the WatchDog board has not seen a pulse on the pin marked "HB" for 5 minutes it will toggle the relay for 10 seconds. Killing power to the attached device. Performing a hard reset.

- After connecting the usb cable to the board's micro usb port labeled "TO POWER". Or after a button press and the external LEDS turn back on. Wait 5 minutes.
- After 5 minutes the board should self toggle the relay and behave as if you pressed the Button on the external connector.

Putting Together WatchDog Kit

Place the programmed WatchDog and 2 the connector cables in a bag to create the kit.

