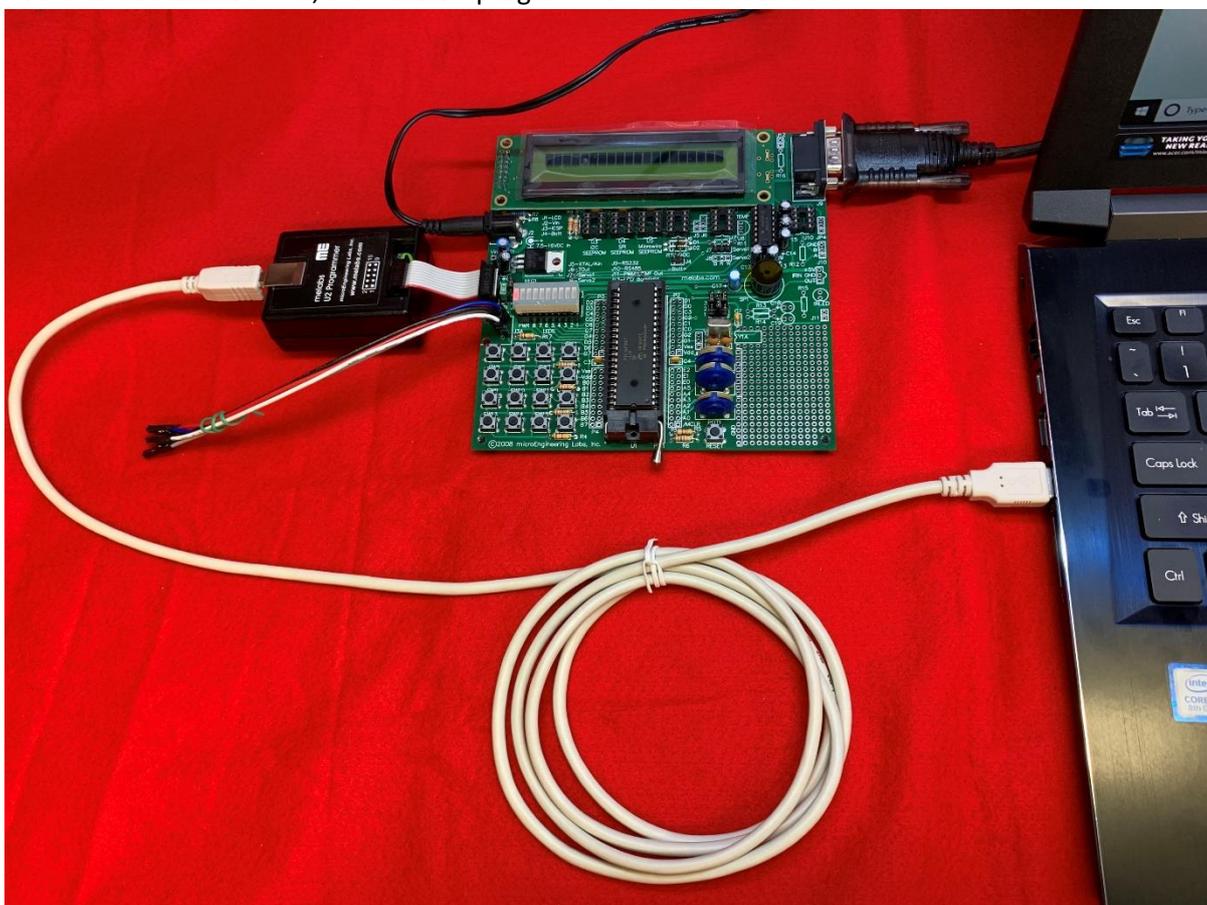


## Microcode Studio unable to connect to the PIC when trying to run ICD mode Issue where LabX1 cannot give the ICD programmer a serial connection.

### SUMMARY:

If the serial rS232 connection is connected first then the software PDP3 is opened, it will normally show the connected port number (com4 in my system). After that the U2 the board can be powered up with the U2 connected and attached to the PC USB port last. Now the system is functional.

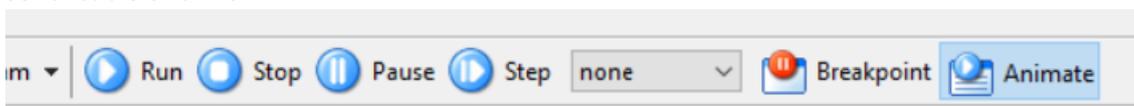
1. The LAB-X1 device needs a serial connection from the PC to the RS232 port at shown in the top right of the board image. This shows the normal board connections but the serial port needs to be attached first, then the U2 programmer as described below.



2. Close the Microcode Studio – PICBasic Pro software until the hardware is connected.
3. Attach the rS232 serial cable to the Lab-X1 board
4. Now start the PBP3 software . You should see the serial port number in the ICD toolbar.



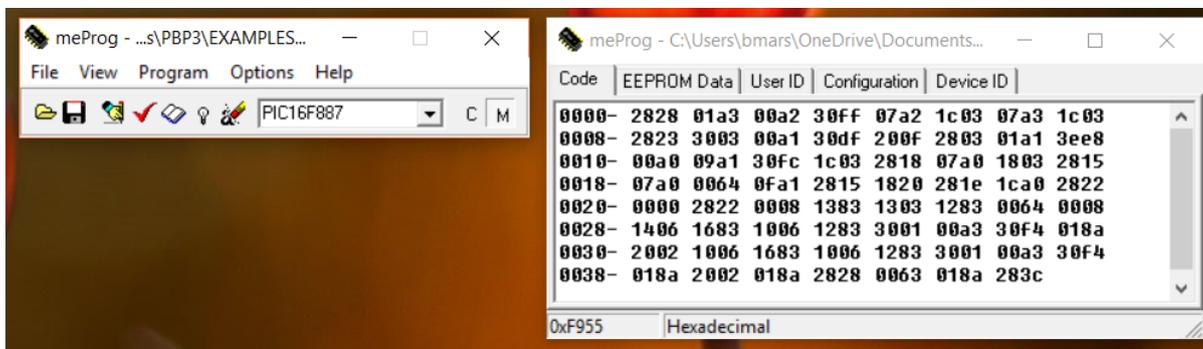
5. If you see the word “none” then your ICD will never work. Something is wrong with the serial cable or driver.



6. If you see “none” as above, check the device driver and locate or fix the serial port (for me it is com4).
7. Now connect the power and U2 programmer and, finally, connect it to a spare USB on the PC.
8. Now load the “blinkx2.pbp” file from the “PBP3\EXAMPLES\LABX2-16F887” location and

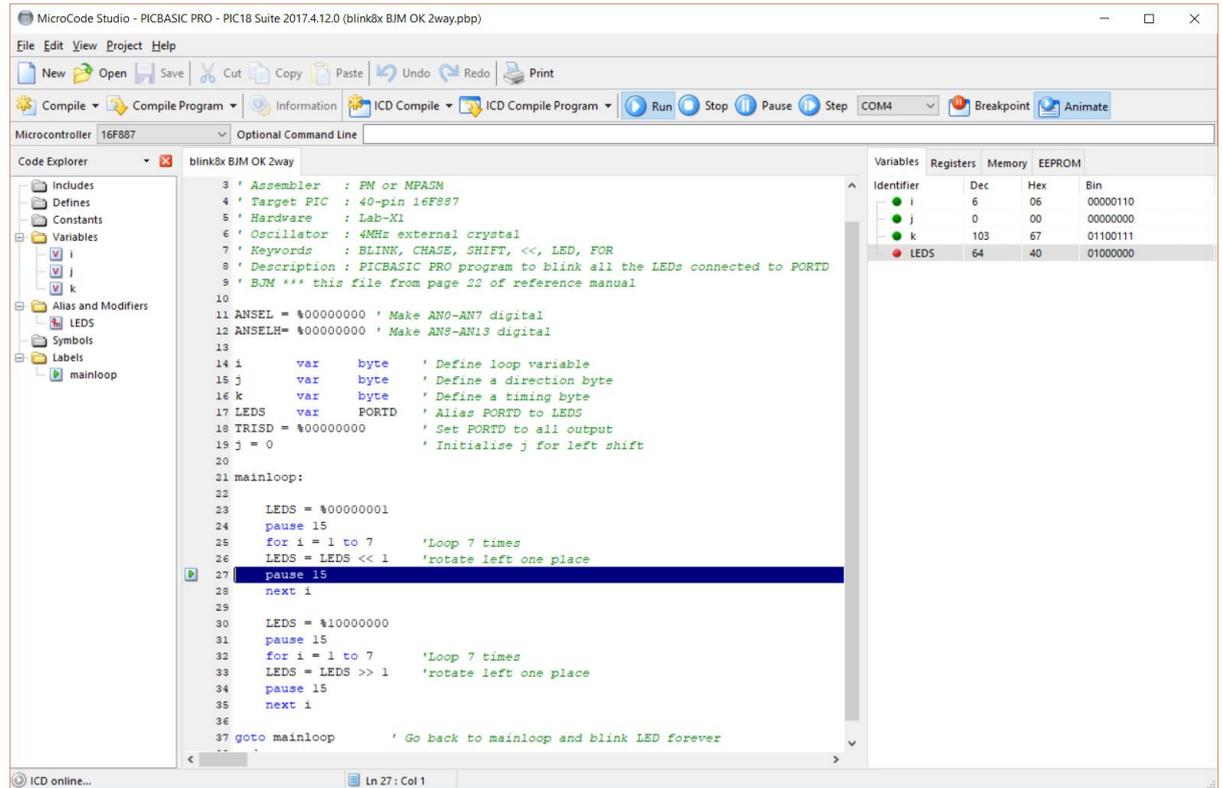


then compile the program. The programmer might pop up if it wasn't open. Initially it will have loaded the completed HEX file. Now you can press the “M” button to see the HEX file data in a window



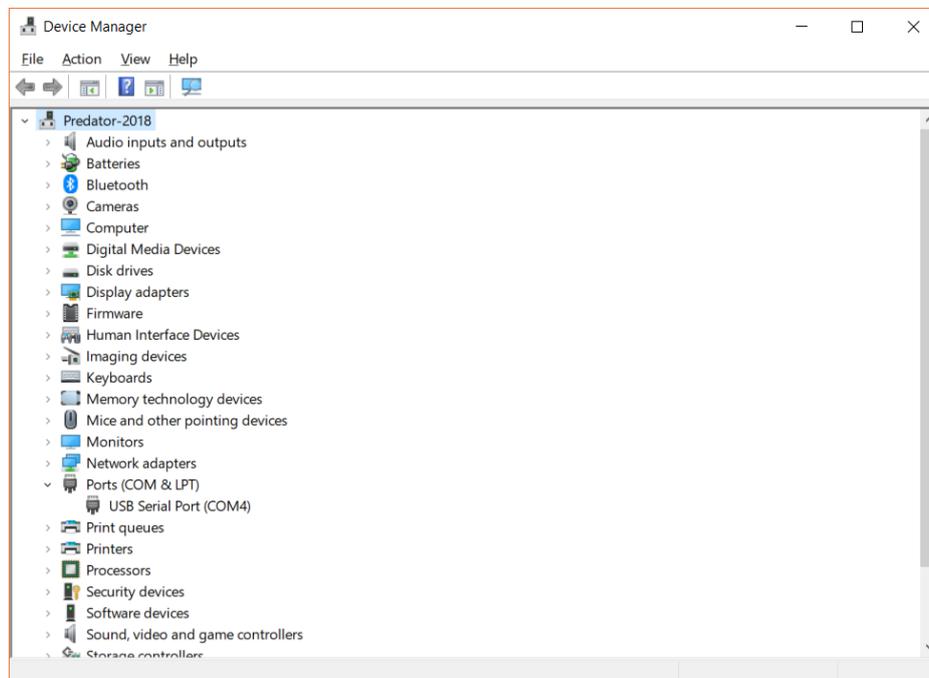
- . If you use the ICD compile option, the file will be at least 3k, but a simple blink program without the ICD components will only be about 1k.
9. Now run the programmer (“Program > Program” or ctrl-p) . At this time, you must have the USB connected to the U2 programmer gadget or something similar. The PIC LED on the U2 will glow red for a few seconds and you will see completion messages on the screen. As soon as this completes, the blink program will be running and you should see blinking.
10. Finally, create the ICD compiled version and load that into the programmer, it is the most recent HEX file. You can examine it and see it is much bigger than the non-ICD version. Now do ctrl-p again and see the LED going red as the data is programmed into the PIC.
11. On this occasion, the program WILL NOT START because you need to press the play button on the ICD toolbar. When you do this the program runs and you see a blue bar stepping through the program. Also, a window at the right shows progress of the variables. The screenshot below shows a running program which scrolls the LED bars back and forwards

with a 50 msec delay between transitions.



## OTHER THINGS ABOUT SERIAL

Go to control panel and device manager to see this screen and confirm that your USB to serial cable is actually functioning.



This message below means that the serial port is not connected to the lab-x1 rS232 connector. Check the order described above.

