Loading the Programmer

1/. It is strongly recommended that you download the most recent version of the Free PICAXE Programming Editor from the www site; **www.picaxe.co.uk**

Go to the **Software** tab at this site and follow the instructions and download the program ~ 17 Meg

2/. There is a copy on the Booster resource under Software

3/. Go to the Start > Programs > Revolution Education > PICAXE Programming Editor

4/. Start the PICAXE Programming Editor

5/. Click on View > Options and select the picaxe-08M (it must match the type of chip you have)

6/. Click on the Serial Port and choose the serial port you will use to program the PICAXE. (Usually 1)

I strongly recommend reading the getting started information in the PICAXE Programmer **Help > Manual I >**
There are excellent tutorials in the manual so scan through it quickly to get started.

Programming Problems? Try This…

1/. Is the programming lead a) plugged in b) the right place and c) The right way so blue and black marks match up)

2/. Power? You need 3 volts min and 5.5 volts max. Check voltage is actually PRESENT on metal pins going into the actual 08M chip package on the +ve and –ve legs of the chip

3/. Check that the programmer is set to an 08M under view options
> **View > Options**

4/. Check that you have the correct Com port:
> **View > Options > Serial Port**

5/. You can test your Com port by shorting the Tx data and Rx data pins of the programming lead and sending serial data from the F8 serial Terminal window.
> *** Short the blue and middle pins together with any wire or metal**
> *** Press the F8 Key**
> *** Type something in the bottom Output Buffer window (any baud rate will work)**
> *** Click send while the two pins are linked together. This should "LOOP BACK" sent data**
> *** The same text you typed and "Sent" should appear in the top Input Buffer window**

6/. Check your circuit against my photos and against the getting started information in the PICAXE Programmer Help Section Manual I You **HAVE** to have the –ve, send **AND** receive wires all hooked up EXACTLY to load the program.

6/. Remove the chip and test the connections right up to the chip FROM the DB9 serial plug. You should be able to see series 22k to the 'R' pin and a 10k to -ve

7/. Are you pressing the F5 key?

8/. Try a Hard Boot;
> *** Turn off the power to the PICAXE.**
> *** Press the F5 key**
> *** Wait and only when the download progress box appears on the screen turn on the power to the**
PICAXE

9/. Does your program "pass muster" Have you tried the "Test" syntax key F4?

10/. Are you using a USB / serial "adaptor" These can be unreliable. The correct driver MUST be the correct type and match your type of adaptor, NOT the driver Windows "thinks" it needs

11/. Does it work on a different computer? Preferably a PC Base Unit with a "Real" 9 pin 'Com' serial port. E.g. Com 1 or Com 2 or Com A and Com B found on the back of PC base units

12/. You can download a blank program to test your setup. You do not need to write one.

13/. Lucky last - Is the chip you have the same as the programm settings under Options (Picaxe08M or M2 etc)

If the chip I gave you has not had the original test program wiped off it, the proto board and wiring can still be tested by plugging an LED into any of the output pins or connecting a sounder on pin 2 and writing a short program such as one line 'Play 3,3' and downloading it.

Still Stuck? contact me at picaxe@gmail.com

- Andrew

Hi L…..

1/. I offer a FREE SWAP of any 08M you think was not damaged by you. We will send you another if you are stuck. Just ask nicely !

2/. I want to help you get going and if it is any consolation my first 5 PICAXE did not work!! but I have learnt the following the hard way...

* NEVER use power packs / supplies as you only get ONE chance with small chips as they will deliver as much current as the chip can take until the 08M insides turn to lava. Plug packs very rarely put out what they say they put out either.

* Battery packs virtually NEVER destroy PICAXE chips

* Note even if you leave an 08M on a board with the battery pack turned on it will take several months for the battery pack to go flat. If you use the Sleep or Nap command it will take YEARS. The battery will go stale before it goes flat! If you use DisableBOD and a $1 coin lithium cell and sleep nap you can get > 10 years standby.

* Stick to 3 to 4.5 volts and a proto board until you get it working THEN move on out to 5 volts power packs etc.

* 4 x AA batteries will not work. (My mistake too) 08M WILL run up to and over 7 volts but no way will they program. The higher the volts the bigger the mess if anything is wired incorrectly too....

* 4.5 volt 3 x AA is "perfect" for Ir and Rf work

* I handle many 08M every day. I have never managed to "blow one up" in the last 2 years. This includes overheating (rare these days) accidentally flashing 700 VDC into an input pin (Geiger counter experiment) They are severely rugged little things provided you don't "cook" them with power packs.

* Note the chips can't leave the programming robot at Rev ed in the UK without a boot check and test run.

* I usually load a test pin LED flash, Tune and txt message program onto the 08M as it leaves my shed as proof so it let's you know it is working as soon as you power it up WITHOUT trying to program it. It is important to use this to see if your board is powered correctly and polarity and voltages are all correct. It it does not flash LED's off all OP pins and play a tune from pin2 on any speaker or piezo sounder then you have a basic wiring problem. DO NOT PROCEED! Look for the fault. It will even send a serial txt message back to the PC F8 serial terminal window if the programming lead is pugged in and all is set up correctly. I can send you a replacement with this on it.

* Programming problems... Check View Options for the correct chip type then the serial port.

* Serial cable problems can be LOGICALLY tested. FIRST test your picaxe proto board on another computer with a REAL serial port to prove the problem is not the proto board layout or the three core ribbon cable.

* Then PROVE where the problem lies by performing a "Loop back Test" Connect the send line (blue) to the middle pin and use the F8 window in the programmer to "txt" a message from the bottom window to the top window when the send button is pressed at ANY baud rate. (It is fun to put an LED in series with the loop to "see" the data bits flashing past while doing this at different baud rates.)

* USB / Serial problems are Many and I avoid USB / Serial as much as possible BUT:
- Windoze tries to put in it's own driver before you can blink and this will nearly always not work
- You must download the correct driver for the type of cable and operating system
- You must un install any other driver (or remove device) if you are going to try again
- Some picaxe won't run until the programming lead is taken out of the proto board.
- Under view > Options > Serial tab there are many resets / refresh / test buttons to get your lead working properly
- Have you the latest version of the programmer (NZ is flooded with olde out of date picaxe programming discs)
- If all else fails have you read the instructions FOR YOUR TYPE OF LEAD AND Operating System step by step?
- Have you POINT to POINT tested the resistors in circuit with a multi meter with the chip removed? You should see 22k from the middle pin to the R pin hole of where the chip was and 10 k between the middle pin and the proto board -ve. Is there continuity (zero ohms) between pin 0 hole all the way back and up the programming lead (blue)?
- Is the chip in the right way?

Send any or all the bits back to me or Ross and I can sort out (and test) all of it USB > Serial included.

A pre assembled and tested board from me is probably the best way to start.

We want you to have as much fun as possible with these beasts. They are seriously good fun and easy to use once you get started.

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