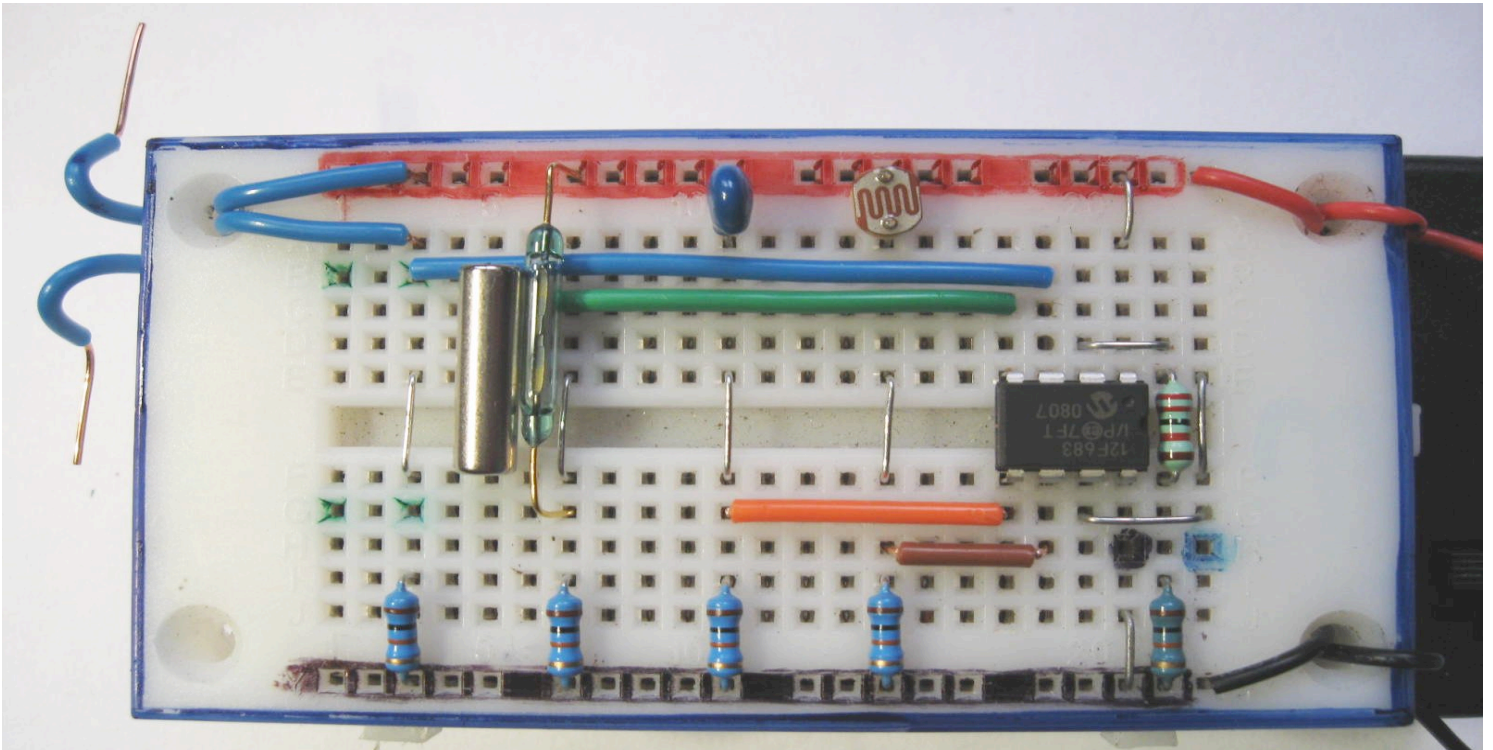


# F9 Data Logger Greenhouse Project



## Main:

```
readadc 1, b1      'Read ADC light level from the LDR/10k potential divider and place into variable b1
readadc 2, b2      'Read ADC temperature from the 100k thermistor/10k divider and place into b2
b3 = pin3          'Read DIGITAL water level float reed switch ON/Off Hi/Low 1/0 state into b3
readadc 4, b4      'Read ADC soil moisture probes/10k potential divider into variable b4
inc w6             'W6 is a counter for the 'X' axis time base or sample number for the data logger
sertxd ( #w6, 44, #b1, 44, #b2, 44, #b3, 44, #b4, 13, 10 ) 'Tx Comma Separated Vars to F8,F9 screen
nap 6              'Variable time delay( try different values here )
goto Main
```

- Load the above program and pre test the 'CSV' raw serial data using the F8 screen
- Open up the F9 screen, tick graph to open the graph plot of the sensors...
  - Select Options > Baud Rate 4800
  - Select Options > Number of sensors ( above program shows 4 sensors )
  - Select Options > Send G ( make sure ticked OFF )
  - To run a data plot, make sure you have ticked the graph check box
  - To run a data plot, 1/. Turn Picaxe OFF, 2/.Select File > New, then 3/. Turn Picaxe ON within 5 seconds. Note: The F9 plotter will time out and close after 5 seconds of no data
  - To stop plot turn off the picaxe and logging will stop after 5 seconds of no data
  - Use the Edit options to export data txt and or graph into Word
  - Use File > Save As to save the data file directly in a raw 'CSV' Excel file format
  - Go and find the file and see if XL opens it directly or choose Excel and open the file !
- Separate templates are available for lots of other ideas from the Booster Resource
- Format the data to display useful messages on an LCD Serial Backpack Display
- Make a display system that alarms (flashing LCD backlight) when limits are exceeded
- Transmit one or more data via radio or Ird data link to another PICAXE, www or LCD display
- Use exotic sensor templates to try out other sensors such as: DS18B20 Hi Resolution Temperature. Hall Effect Sensor. Soil moisture. Reed switch and count command (RPM)
- Use readadc10 and math functions to get higher resolution

- Stamp-DAQ or PLX-DAQ ( advanced 26 x channels ) can import, plot, time and date stamp data into a spreadsheet live 'as it happens'