

```

1  '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2
3
4  'Written by Downwind for TheBackShed Power Logger 20/6/2010
5
6  '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
7
8  Symbol temp      =      w0  'label variable word1 TEMP
9  symbol amp       =      w1  'label variable word0 AMP
10 symbol volt      =      w2  'label variable word2 VOLT
11 symbol rpm       =      w3  'label variable word4 RPM
12
13 symbol Check     =      w4  'lable variable word5 CHECK
14
15 symbol Y         =      b13  'label variable  b13  Y
16
17 symbol Wind      =      w5  'lable variable word5 Windspeed
18
19 setfreq m4      'set the clock frequency to 4 meg/Hz
20
21 #picaxe 08m     'set the type of picaxe for prog editor
22
23 'Low 4          'set spare pin to low
24
25
26 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
27
28
29 START:          'label the start of the program START
30
31
32
33     pulsin 3,0,rpm
34     count 3,500, rpm      'count RPM pulse for 500 milliseconds
35
36 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
37
38     temp = 0
39
40     for Y = 0 to 19      'read amps 10 times
41
42
43     readadc10 1, temp    'read Amps input 1
44     if temp = 0 then
45     let amp = 0
46     endif
47     let amp = amp + temp 'add temp reading to previous amps reading
48
49     next Y              'repeat process 20 times
50     temp = 0           'reset temp to zero
51
52
53
54 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
55
56
57     temp = 0
58
59     for Y = 0 to 1      'read volts 2 times
60
61
62     readadc10 2, temp    'read Volts 2
63     let volt = volt + temp 'add temp reading to provious volt reading
64
65     next Y              'repeat process 2 times
66
67     temp = 0           'reset temp to zero
68
69
70 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

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71
72     Let check = volt + amp + rpm + wind           'compile checksum
73
74     'send the data out the serial port to computer
75
76     sertextd("[<V>" ,#volt, "</V> <I>" , #Amp , "</I> <R>" ,#RPM, "</R>
77 <S>" ,#Wind, "</S> <C>" ,#Check, "</C>]" ,13,10)
78
79
80 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
81
82     Let amp = amp / 2
83     let volt = volt / 2
84
85
86     goto start           'Start over, loop back to Start
87
88
89
90
91     End                 'there is never a end
92
93
94 '%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
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