

```

001  B0 = 1
002  B1 = 32
003  B2 = 1
004  B6 = 0
005
006  rem | B0 will be the byte to be written. B1 is the data to be written. B2 is the
byte 00000001b for comparison purposes. B3 is a copy of B1. B6 is where data read from
C0 to C7 is stored.
007  rem | Ports: A.2 to LED1, A.3 to LED2, A.0 to W/R (0 WRITE, 1 READ), A.1 to CS,
B5 to SER (Data), B6 to SRCLK (Clock), B7 to SCLK (Latch), C0 to C7 to 6116 DATA bus
008
009  rem | Setting CS on the 6116 HIGH, chip control on shift register low
010  HIGH A.1
011  LOW B.5
012  LOW B.6
013  LOW B.7
014
015  rem | Let's turn the two LEDs high
016  HIGH A.2
017  HIGH A.3
018
019  rem | Writes address in B0 to the shift register, enables latch
020  GOSUB SHIFTWRITE
021  HIGH B.7
022  rem | Writes data to C0 to C7
023  GOSUB DATAWRITE
024  rem | The memory chip can now be enabled
025  LOW A.0
026  LOW A.1
027  HIGH A.1
028  rem | the data is now written to the memory chip
029  rem | Now to read data from the chip
030  GOSUB DATAREAD
031  if B6 = B1 THEN
032      LOW A.2
033      HIGH A.3
034  else
035      HIGH A.2
036      LOW A.3
037  endif
038  LOW B.7
039  wait 60
040  rem | The program is finished
041
042
043  rem | This will write B0 to the shift register, leaving the latch disabled
044  SHIFTWRITE:
045  B3 = B1
046  for B4 = 1 to 8
047      B5 = B2&B3
048      if B5 = 1 then
049          HIGH B.5
050          HIGH B.6
051          LOW B.6
052          LOW B.5
053      else
054          LOW B.5
055          HIGH B.6
056          LOW B.6
057      endif
058      B3 = B3>>1
059  next B4
060
061  return
062
063  rem | This will write B1 to C0-C7

```

```

064 DATAWRITE:
065 B3 = B1
066 B5 = B2&B3
067 if B5 = 1 then HIGH C.0 endif
068 B3 = B3>>1
069 B5 = B2&B3
070 if B5 = 1 then HIGH C.1 endif
071 B3 = B3>>1
072 B5 = B2&B3
073 if B5 = 1 then HIGH C.2 endif
074 B3 = B3>>1
075 B5 = B2&B3
076 if B5 = 1 then HIGH C.3 endif
077 B3 = B3>>1
078 B5 = B2&B3
079 if B5 = 1 then HIGH C.4 endif
080 B3 = B3>>1
081 B5 = B2&B3
082 if B5 = 1 then HIGH C.5 endif
083 B3 = B3>>1
084 B5 = B2&B3
085 if B5 = 1 then HIGH C.6 endif
086 B3 = B3>>1
087 B5 = B2&B3
088 if B5 = 1 then HIGH C.7 endif
089 B3 = B3>>1
090 return
091
092 rem | This will write C0 to C7 to B6
093 DATAREAD:
094 INPUT C.0
095 INPUT C.1
096 INPUT C.2
097 INPUT C.3
098 INPUT C.4
099 INPUT C.5
100 INPUT C.6
101 INPUT C.7
102 rem | Actual code goes here
103 HIGH A.0
104 LOW A.1
105 if pinC.0=1 then
106     B6 = B6 | 1
107 endif
108 if pinC.1=1 then
109     B6 = B6 | 2
110 endif
111 if pinC.2=1 then
112     B6 = B6 | 4
113 endif
114 if pinC.3=1 then
115     B6 = B6 | 8
116 endif
117 if pinC.4=1 then
118     B6 = B6 | 16
119 endif
120 if pinC.5=1 then
121     B6 = B6 | 32
122 endif
123 if pinC.6=1 then
124     B6 = B6 | 64
125 endif
126 if pinC.7=1 then
127     B6 = B6 | 128
128 endif
129 HIGH A.1

```

```
130  OUTPUT C.0
131  OUTPUT C.1
132  OUTPUT C.2
133  OUTPUT C.3
134  OUTPUT C.4
135  OUTPUT C.5
136  OUTPUT C.6
137  OUTPUT C.7
138  return
139
140
141
142
143
144
145
146
147
148
```