1. **Burn PROM**

   The Boot Monitor is supplied as a SRecord file and should be programmed at address $FC0000 as per the standard 68030 monitor..

2. **Console selection**

   The Boot Monitor can utilise either the Propeller Console board or the USB port on the Serial I/O board as the system console. The selected system console is determined by the two least significant bit of IO Port $00EF which corresponds to the IOByte DIP switch on the System Monitor Board.

   $0 Serial I/O Board, USB port.

   $1 Serial I/O Board, Serial Port 1 (9600N81)

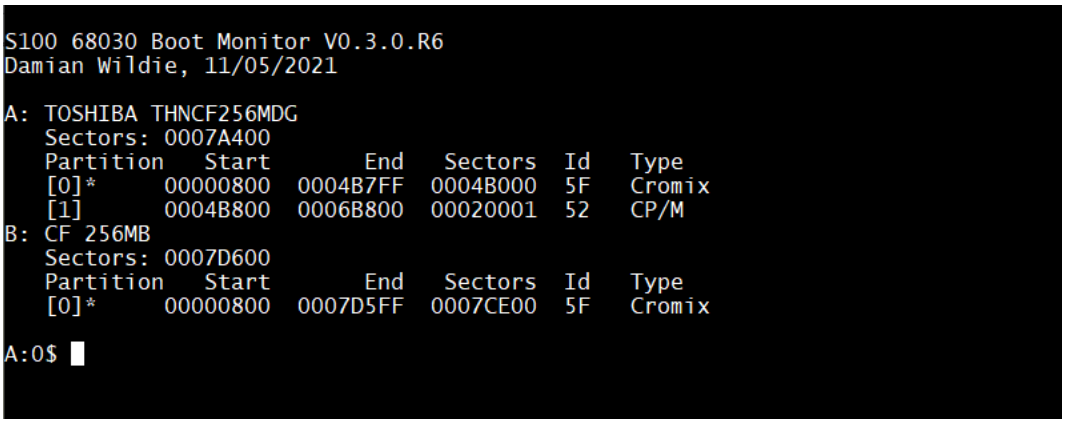
   $2 Propeller Board

   $3 Serial I/O Board, USB port if present, otherwise, Propeller Board.

   If the System Monitor Board is not present, the IO Port should read as $FF.

3. **Use**

   When booted, the Boot Monitor should display on the system console something similar to:



   It will display information from any CF cards present in the IDE/CF Board including the MBR partition table.

   The screenshot above shows two CF cards:

   A Has two partitions, one Cromix and one CP/M

   B Has a single Cromix partition.

   The prompt identifies the currently selected CF card and partition, in this case CF Card A, Partition 0.

   A different CF Card can be selected by specifying the card's letter followed by a colon.

   A different partition on the current card can be selected using the *part* command.

```
A:1$
A:1$ b:
B:0$ a:
A:1$ part 0
A:0$
```

To view the contents of a partition, use the *dir* or *ls* commands.

For a Cromix partition, the emulated ST drive's geometry and the content's of the root directory are displayed. It is not possible to view the contents of sub directories.

```
A:0$ dir
Drive geometry:
  cylinders:      1225
  sectors/track:  20
  surfaces:       11
  bytes/sector:   512
  start cylinder: 1
  first fs block: 0x8dc

      51 D   11:50:30  9/10/1987  etc
     103 D   11:46:47  9/10/1987  bin
      19 D   11:49:01  9/10/1987  cmd
     132 D   11:49:10  9/10/1987  dev
       8 D   11:50:23  9/10/1987  equ
   91544 F   17:07:11 14/04/2021  cromix.sys
      12 D   11:51:55  9/10/1987  usr
      16 D   11:51:11  9/10/1987  gen
       1 D   04:05:49 21/11/1997  tmp
       0 F   15:26:07 16/05/2020  floppy
       0 F   07:02:45 22/12/2020  ide

A:0$
```

For a CP/M directory, all files are displayed.

```
A:0$ part 1
A:1$ dir
CP/M directory listing for drive A

0:LABEL.TXT       128
0:AR68.REL      39296
0:AS68INIT.      6400
0:AS68.REL      50560
0:ASSERT.H        384
0:BIOSTYPS.H      768
0:C068.REL      53760
0:C168.REL      46592
0:CE.SUB          256
0:CLIB.         37120
0:CLINKE.SUB      128
0:CLINKF.SUB      128
0:CLINK.SUB       128
0:CONFIG.REL    32128
0:COPY.REL      39424
0:CP68.REL      52992
0:CPMLIB.        8192
0:CPM.REL       61824
0:CTYPE.H        1792
0:ERRNO.H        1024
0:C.SUB           256
0:LOADBIOS.H      384
0:DDT10.REL      3584
0:DDT68000.68K  55168
0:DDT68010.68K  56320
0:DDT.REL        3584
```

To view the available commands, use the *help* command:

```
A:0$ help

S100 68030 Boot Monitor V0.3.0.R6
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Available commands:
a                     : Select drive A
b                     : Select drive B
cas                   : Show the cache control register
cai                   : Enable the address cache
cdi                   : Enable the data cache
console <[A|B|P|U]> : Set the console device
boot <file>           : Load CP/M S-Record <file> into memory and execute
cromix <file>         : Load cromix.sys S-Record <file> into memory and execute
dir                   : Display directory of current drive
def                   : Display the CPM disk definition
error                 : Read the error register of the current drive
fdisk                 : Display the current drive's MBR partition table
help                  : Display the list of commands
id                    : Display the drive's id info
init                  : Initialise the current IDE drive
irqm                  : Display or set the IRQ mask
irqc                  : Display the IRQ counts
irqz                  : Zero the IRQ counts
key                   : Display key strokes as ASCII, terminated by new line
lba <val>             : Set selected drive's LBA value
mbr                   : Read the current drive's MBR partition table
mem <addr> <len>      : Display <len> bytes starting at <addr>
u                     : Read the next memory block
i                     : Read the previous memory block
part <partId>         : Select partition <partId>
pin <port>            : Read from portNo
pout <port> <byte>    : Write byte to portNo
read <lba>            : Read and display the drive sector at <lba>
>                     : Increment LBA, read and display the drive sector
<                     : Decrement LBA, read and display the drive sector
regs                  : Display the registers
scmd <[A|B]> Reg Val: Send Val to register Reg for port A, B
sinit <[A|B]>         : Initialise serial port A or B
sloop <[A|B|U]>       : Loopback serial port A, B or USB
sout <[A|B|U]>        : Console out to serial port A, B or USB
sstat <[A|B|U]>       : Get the status of serial port A, B or USB
sreset                : Reset both serial ports
ssp <addr>            : Set the stack pointer to <addr> and restart
stack                 : Test the stack
status                : Read the status register of the current drive
testb <addr> <len>    : Memory test <len> bytes starting at <addr>
testd <addr> <len>    : Memory test <len> double words starting at <addr>
testf <addr> <len>    : Memory fast test <len> double words starting at <addr>

A:0$
```