

:VIEW Text32 for the BBC micro:bit



www.kitronik.co.uk/5650

Introduction: The :VIEW Text32 is a character LCD showing 32 characters (2 lines of 16 characters). The :VIEW Text32 also breaks out of the BBC micro:bit pins to an edge pads (excluding pin14). This resulting in the board being plugged into any edge connector or used in the same way as a the standard edge connection on a BBC micro:bit. Detailed information regarding the uses of each micro:bit pin can be found at: www.microbit.co.uk/device/pins

Power Supply:

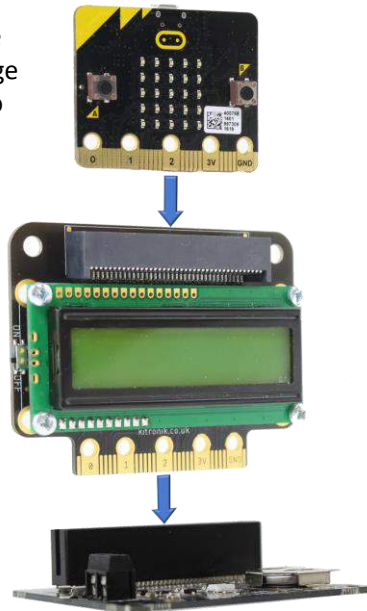
On the back of the :VIEW Text32 has a 3xAAA battery holder to provide power to the :VIEW Text32, the attached micro:bit, and the replicated edge connector. There is a power switch for turning the battery supply on and off. The replicated edge connector can supply 90mA (as per the normal micro:bit)

Connecting a BBC micro:bit:

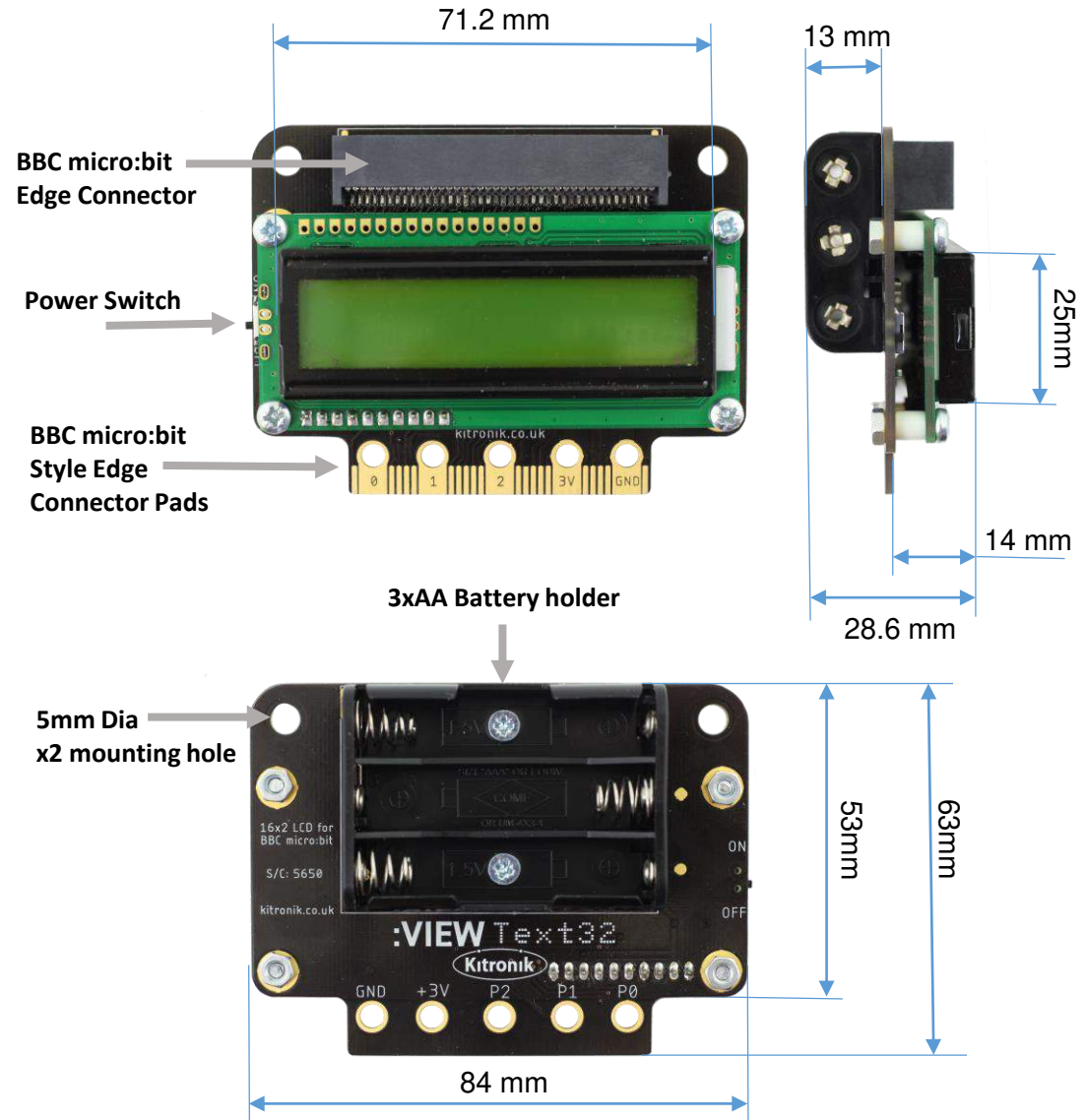
The board has been designed so that the BBC micro:bit can be slotted into the edge connector on the top side of the PCB. No extra tools are required for installation. The Blue arrows show the direction of insertion of the BBC micro:bit.

By replicating the BBC micro:bit edge connector the :VIEW Text32 has the ability to plug the into other boards to add a LCD. All pins (with exception of pin14) are passed through from the BBC micro:bit.

NOTE: Use of the :VIEW Text32 edge connector SPI pins (p13 & p15) may result in loss of functionality.



Layout and Dimensions:



Electrical Information

Operating Voltage (Vcc)	3xAAA Batteries (4.5V)
Regulated Voltage Supply (for BBC micro:bit)	+3.3V
Max Supply Current (LCD and backlight)	<20mA
Number of Pin Break Outs	18 GPIO (excluding pin14)

Microsoft MakeCode Blocks editor code

This program was created in the Microsoft MakeCode Blocks Editor for BBC micro:bit. The example code first displays a string across both LCD lines.

On button A pressed function, the display will clear. Next the parameters for alignment to the left hand side, update set to single line and update every 1500ms (1.5 seconds). All the set parameters within this block can be altered.

Then the string will show on the :VIEW Text32 to the previous set parameters.

On button B pressed function, the display will clear. The parameters for scrolling string are set next. For this example, the scrolling direction is going to be left direction, starting off screen and finish off screen with an delay of 500ms (1/2 second).

The text will scroll on the top line of the :VIEW Text32



```
on start
  Show String "Hello!"

on button A pressed
  Clear Display
  Show Format: Show Alignment Left Page update Single Delay(ms) 1500
  Show String "This show string block will display across both LCD lines"

on button B pressed
  Clear Display
  Scroll Format: Scroll Direction Left
  Position start off screen
  Position finish off screen
  Delay(ms) 500
  On Top Line Scroll text String "This text will scroll along the top line of the LCD"
```