***Self-Directed Activities: Picoboard***

**Activity 1 - Use the Picoboard**

**Note - for this activity, you will need to use the offline version of Scratch (Scratch 1.4)**.

The picoboard is a sensor board, which enables Scratch to respond to events happening outside of the computer via the different sensors:



Begin by connecting the picoboard to the computer via the orange USB cable.

Once connected, you will create a simple event in Scratch using the picoboard. From the Sensing palette, begin by dragging over the block, ‘*slider* sensor value’. When the slider is moved on the Picoboard, the sprite on the screen should move as well. To do this, you need to put the ‘*slider* sensor value’ block inside a greater than (>) block. The final block of code should look like this:

 

Observe how when the slider is moved, the sprite moves across the screen. Ask: how can we make sure that the sprite returns to its original place?

In order for the sprite to move back to its original place, you need to create a new block of code that says ‘forever if *slider* sensor value’ = 0 to go to these specific coordinates.

The block of code should look something like this:



Try several different inputs from the Picoboard (sound, button pressed, light). Remember, the button, slider, light sensor and sound sensor are all examples of inputs; the output is what happens to the sprite as a result of the input.



**Activity 2 -** Create a new Scratch program (using Scratch 1.4), with interesting sprites that respond to all four of the picoboard’s inputs: light, sound, the button and the slider.

