10 Count how many times the switch is pressed

1. Build the Flowcode program.
2. Connect the Switch Unit to PORT A, and create a push-to-make switch connected to Port A0.
3. Connect the LED Unit to PORT B, and create three LEDs, on B0, B1 and B2.
4. Here are the configuration details for some of the icons. The others you should be able to set up for yourself.

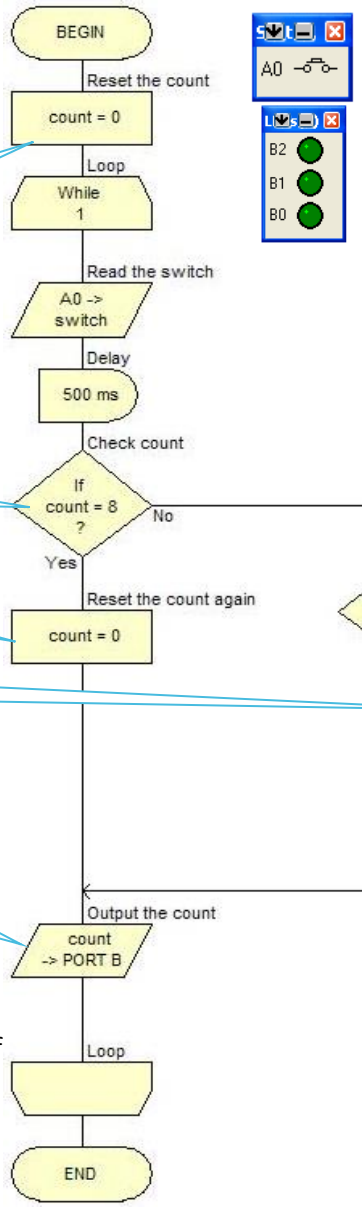
Display name	Reset the count
Calculation	count = 0

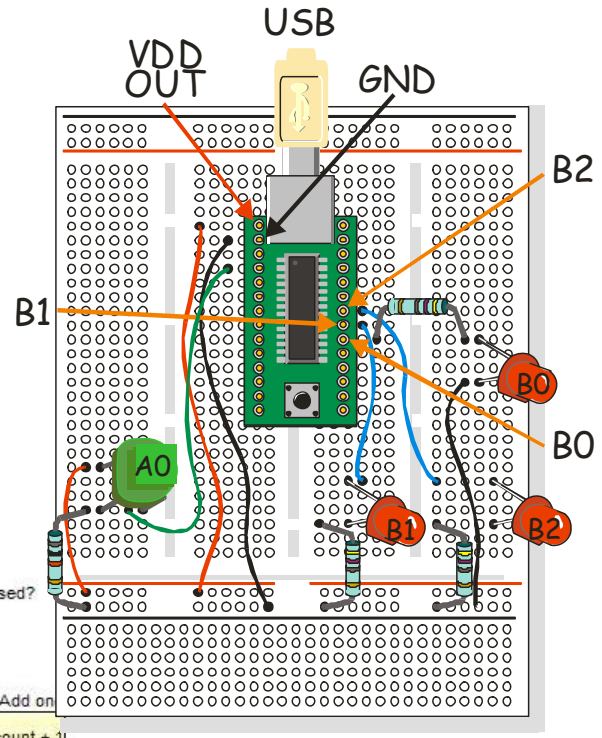
Display name	Check the count
If	count = 8
Swap	Yes and No

Display name	Reset the count again
Calculation	count = 0

Display name	Add one to count
Calculation	count = count + 1

Display name	Output the result
Variable	count
Port	PORT B
Output to	Entire Port
Use Masking	Bits 0, 1 and 2 only





5. Save the Flowcode program, and then compile it to the chip.
6. Build the circuit, shown opposite, on the prototype board.
7. Test the circuit by observing the LEDs while pressing the switch a number of times. The count is shown as a binary number. For example, if the switch is pressed five times, then B2 and B0 are lit, and B1 is off.

Further work:
Adjust the delay time to reduce inaccurate counting.

Circuit notes:

- Make sure that the LEDs are plugged in the right way round!
- The LEDs are protected by 470Ω resistors.
- The switch forms a voltage divider with the 1kΩ resistor.
- The flat edge of the switch is on the side in the diagram.