

### 3 Keep the LED lit for a short time

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 one LED, connected to Port B0
4. Configure the Loop icon as in previous programs, and set up the other components as follows:

|              |                 |
|--------------|-----------------|
| Display name | Read the switch |
| Variable     | Switch          |
| Port         | PORT A          |
| Input from   | Single Bit 0    |

|              |                    |
|--------------|--------------------|
| Display name | Is switch pressed? |
| If           | Switch=1           |

|              |               |
|--------------|---------------|
| Display name | Switch LED on |
| Value        | 1             |
| Port         | PORT B        |
| Output to    | Single Bit 0  |

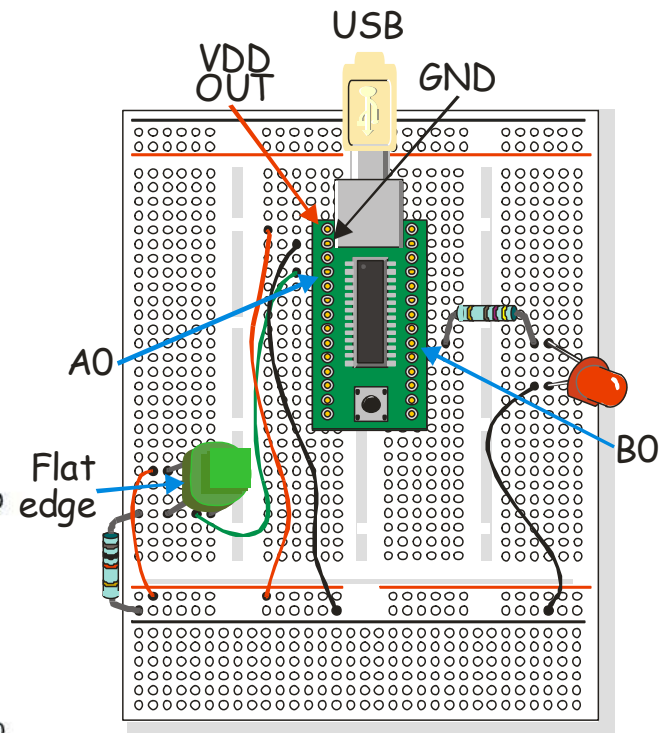
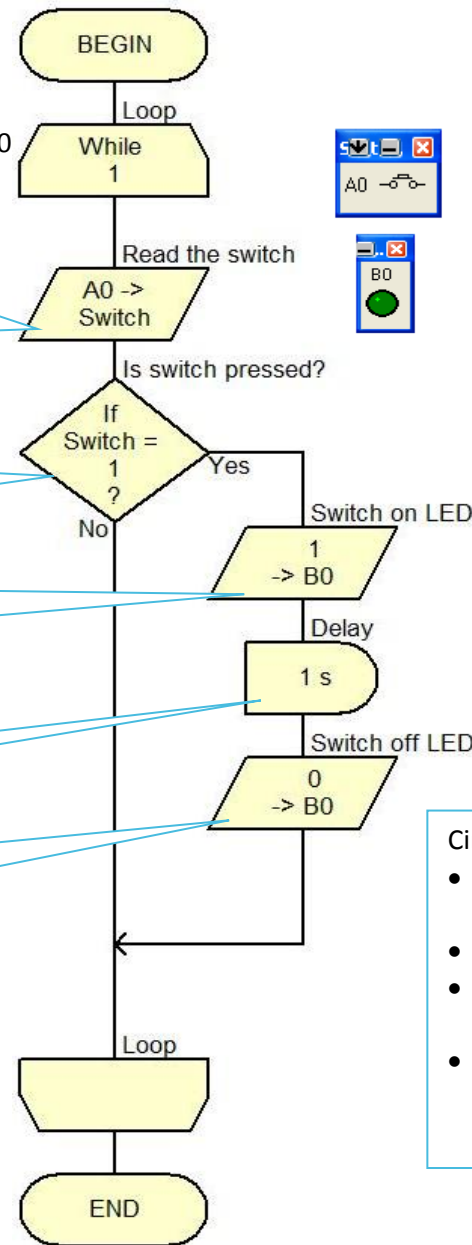
|              |          |
|--------------|----------|
| Display name | Delay    |
| Delay value  | 1 second |

|              |                |
|--------------|----------------|
| Display name | Switch LED off |
| Value        | 0              |
| Port         | PORT B         |
| Output to    | Single Bit 0   |

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 pressing the switch.

Further work:

Modify the program so that the LED stays on for 5 seconds when the switch is pressed.



Circuit notes:

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