

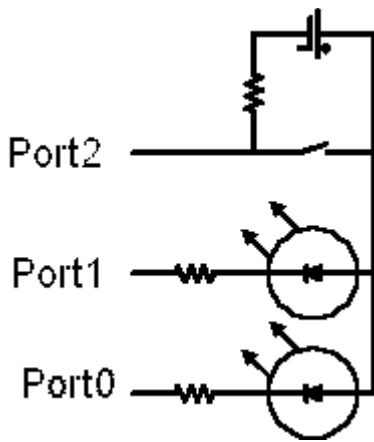
## ECE 292B - Summer 2001- Lab 5

### The Basic Stamp 2 - Simple I/O and Quick Tutorial

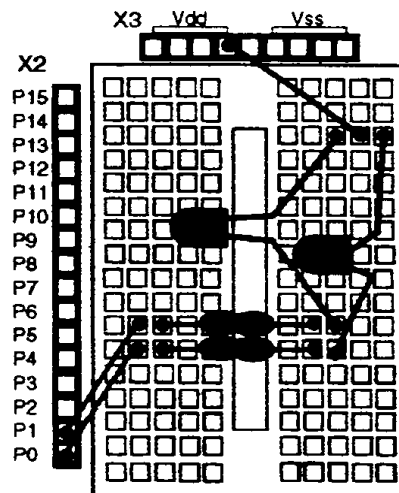
The objective of this quick lab is to practice code development skills and basic Input/output on the Parallax Basic Stamp 2. The lab assignment will require you to wire up some components to light two LEDs and accept input from a push button. Specifically:

1. When the button is not pushed, flash the LEDs on for 1 second, off for 1 second. The two LEDs should flash alternately (one is ON, the other is OFF).
2. When the button is pushed, flash the LEDs on for 100 milliseconds, off for 100 milliseconds. The two LEDs should flash alternately (one is ON, the other is OFF).

Here is the hardware schematic you will need to use on the breadboard:



And here is how to wire up the LEDs on the breadboard (you will have to figure out how to wire the switch).  
(Note: The flat side of the LED is closest to the resistor)



Here are a few important software instructions needed to complete this lab:

<code>for x = n1 to n2</code>	typical for loop, with a <code>next</code> at the end (i.e. <code>for blink = 1 to 100</code> )
<code>goto label</code>	jump to label (i.e. <code>goto reblink</code> , label would be <code>reblink:</code> )
<code>if x=n then label</code>	based on true equation, got to label (i.e. <code>if n=1 then reblink</code> )
<code>input x</code>	configure port X as an input port (i.e. <code>input 1</code> )
<code>inX</code>	read port x (i.e. <code>blink = in3</code> )
<code>next</code>	ends for loop
<code>output x</code>	configure port X as an output port (i.e. <code>output 2</code> )
<code>outX</code>	make port 0 output a value (as in <code>out0 = 0</code> )
<code>pause xx</code>	pause for xx milliseconds ( <code>pause 1000</code> is pause for 1 second)
<code>x var word</code>	create a variable called x, for use later (i.e. <code>blink var word</code> )