

# Workshop 1: Simple Digital Output

**Purpose:** Using the embedded controller to produce a programmed output (LED indication).

**Objective:** This workshop is designed to familiarize the student with elements of the embedded microcontroller.

**Real world application:** Controlling a traffic light.

**Requirements:**

1. Hardware:

- Picstic-3
- One each red, green and yellow LEDs

2. PBasic Software Commands:

- High
- Low
- -Pause

**Procedure:** Set the LEDs vertically on the photoboard:

Red on top

Yellow below red

Green below yellow

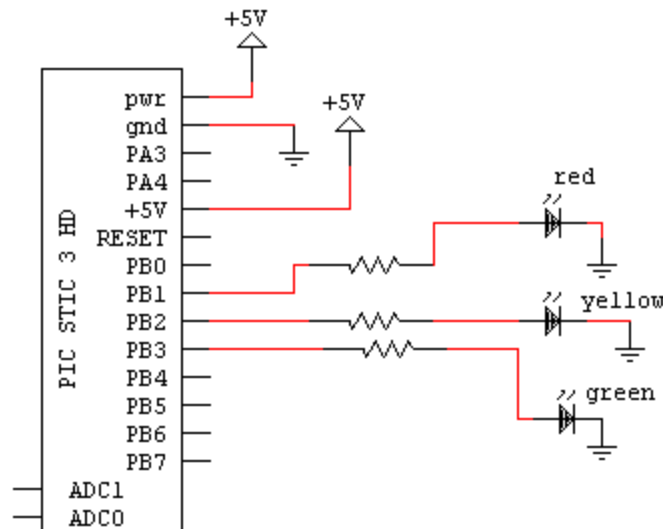
Step 1 - Light the red LED for 9 seconds.

Step 2 - Turn off red LED, then light the green LED for 7 seconds.

Step 3 - Turn off the green led, then light the yellow LED for 3 seconds

Repeat steps 1 through 3 forever.

## *Circuit Drawing for Workshop #1*



## PicBasic Code for Workshop #1

set:

high 1 'red LED

pause 9000

low 1

high 3 'green LED

pause 7000

low 3

high 2 'yellow LED

pause 3000

low 2

goto set