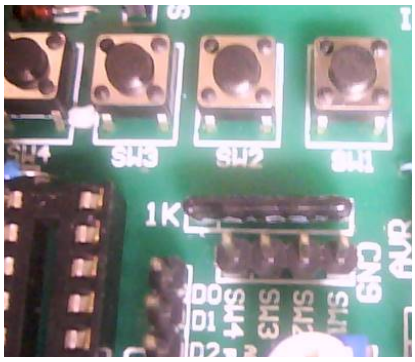
ASSIGNMENT-2
GPIO

Date - Jan 28, 2015

Task 1:

Count number of button presses
Connect one pin of a port to one of the 4 buttons (SW1..4 on CN9).



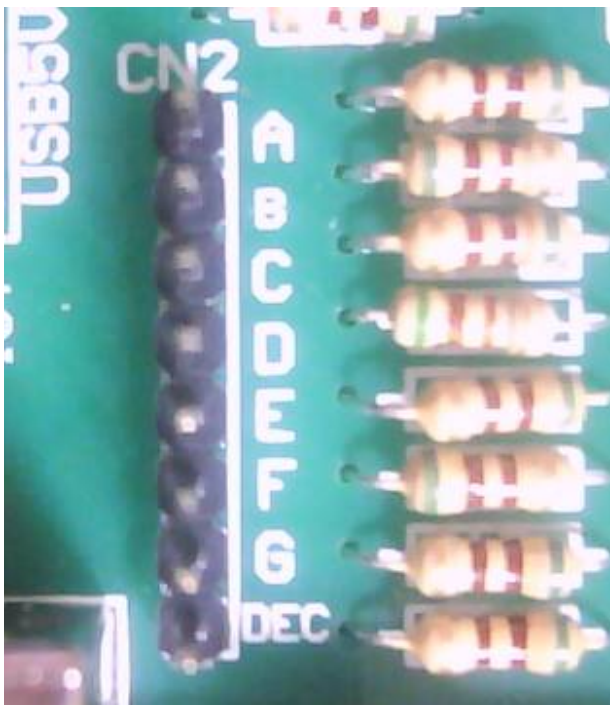
Connect 8 LEDs to another Port.
LEDs should show number of times the button is pressed since reset (1 to 255 could be shown as binary number).

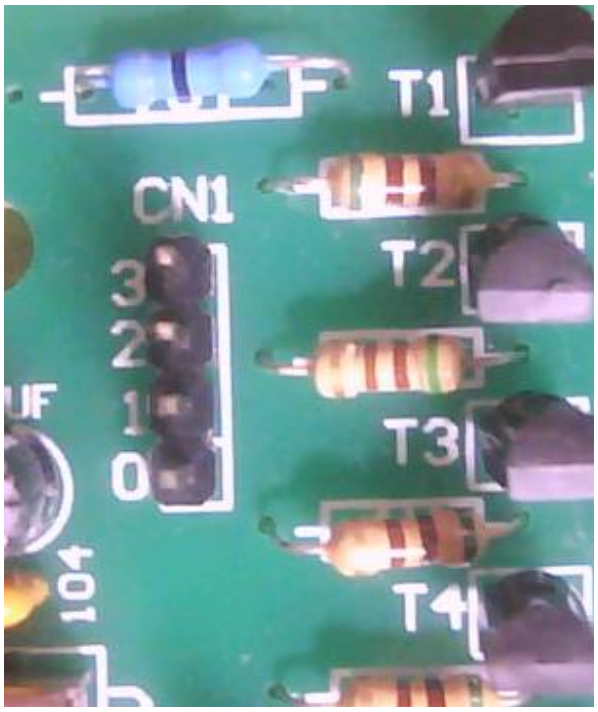
Task 2:

Count number of button presses

Connect one pin of a port to one of the 4 buttons.

Connect 7 Segment display (A..G on CN2) to one Port. connect 4 pins of another port to display selector (0..3 on CN1).





7 Segment should display number of times the button is pressed since reset (1 to 99 could be shown using two segments)

Task 3:

You have to display last four keys pressed on the 7 segment display in the same order.

Assign 0-9 and A-F letters for the 16 keys on the hex keypad.
7 segment display can be initialised by any four digit number e.g. 1234
When a key is pressed it should be added at the end of the number. The first number should be removed from the currently displayed number.

Example:-

Suppose, initially you display 1234 on your screen.
Then,

Pressing ‘8’ should produce
1234 → 2348

And pressing ‘e’ after ‘8’ should produce
2348 → 348e

NOTE:-

Marks will be deducted if there is a ghost image on the display or misfiring of the keys.
