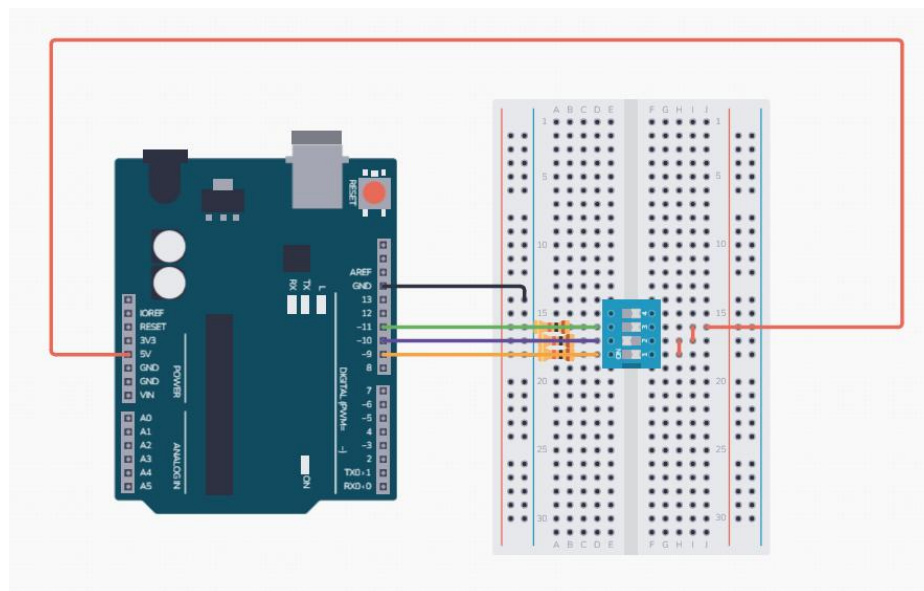


TECH 3230
Lab #6
Bitwise Operators and Input Pins
Ver 0.5

Purpose: To investigate String Arrays and SPRINTF.

Procedure:

1. Connect three switches with pull down resistors (1K) to PB1, PB2 and PB3



1. Write a C program as follows:
 - a. Create the following string arrays
 - i. A 2d char array as follows: `char arr[5][4]={“you”,“can”,“see”,“it”,“now”}`
 - ii. An array that will act as a buffer as follows: `char buffer[20]`
 - b. Take PINB and shift it one place to the right and store it in CHAR variable named x.
 - c. Make all bits other than bits 0,1,2 zero (what bitwise function do you use to do this?)
 - d. Do the following:

X value	String to create	Using
0	you can see it now.	printf with multiple %s's
1	can you see it now?	Use sprintf to build string in buffer, then print using printf (“%s\n\r”,buffer);

2	now you can see it.	Use multiple strcat to build the string into buffer then, then print using printf ("%s\n\r),buffer);
3	now can you see it?	printf with multiple %s's
4	you can now see it.	Use sprintf to build string in buffer, then print using printf ("%s\n\r),buffer);
5	it can see you now.	Use multiple strcat to build the string into buffer then, then print using printf ("%s\n\r),buffer);
6	can it see you now?	printf with multiple %s's
7	now it can see you.	Use sprintf to build string in buffer, then print using printf ("%s\n\r),buffer);

- e. If x is 1,2,4,5,7 (ie when buffer is used), print the location of the word "now" (bonus)
- f. Wait 1 second
- g. Loop back to step b.