Assignmet 1 : XOR logic Implementation

B.Sai Sindhu

Contents

1 Abstract

In the ciruit X and Y are digital inputs, Z is digital output.The equivalent circuit is the logic implementation of XOR Gate.

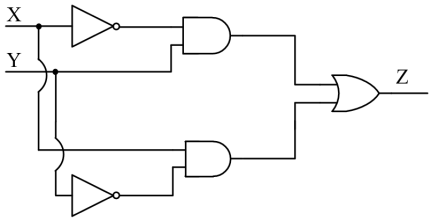

Fig. 1: Z=X!Y+!XY

2 Components

Component	Value	Quantity
Resistor	220 Ohm	1
Arduino	UNO	1
Seven Segment Display		1
Decoder	7447	1
Jumper Wires	M-M	20
Breadboard		1

TABLE I

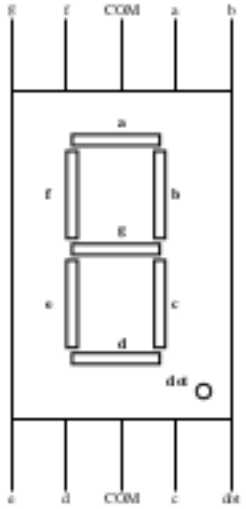

Fig. 2: Seven segment display

7447	$\bar{a}$	$\bar{b}$	$\bar{c}$	$\bar{d}$	$\bar{e}$	$\bar{f}$	$\bar{g}$
Display	a	b	c	d	e	f	g

Fig. 3

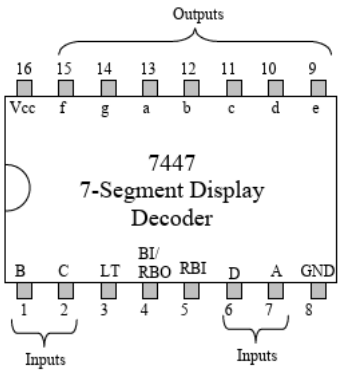

Fig. 4

3 Procedure

1. Connect the circuit as inputs to 0 and 1
2.Connect A pin of 7447 to D2.
3. Connect B,C and D pins of 7447 to GND.
4. Vary the D5 and D6 and observe the output accordingly in the seven segment display.

Observe the circuit by executing the link provided below.

https://github.com/sindhu023/FWC/ide