

POS Expression for Paper 2014 Question 4

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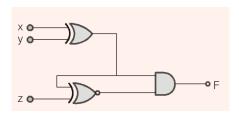
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Abstract

This manual shows how to use Arduino with LED to represent POS expression for the function" F "shown in the below truth table.

1 Ciruit diagram



2 Truth Table

X	Y	Z	F
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	0

3 Components

Components	Value	Quantity
Arduino	UNO	1
LED	-	1

4 Hardware

Make connections between the Arduino and supply through type c cable.

5 Software

Download the program and execute the following program using truth table

https://github.com/imran111888/imran.git

 ${\bf X},\,{\bf Y},\,{\bf Z}$ are the inputs and LED is the output. Using boolean logic

$$F = (XY'Z) + (X'YZ) \tag{1}$$