

POS Expression for Paper 2013 Question 6)c

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2 Hardware

1 Make connections between the Arduino and LED using Breadboard.

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Now make the connections as per Table and execute the following program after downloading.

Abstract

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

U	V	W	G
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

LED	pin-1	pin-2
Arduino	2	GND

U, V, W are the inputs and LED is the output. Using boolean logic,

$$G = (U+V+W')(U+V'+W')(U'+V+W')(U'+V'+W) \quad (1)$$

1 Components

Components	Value	Quantity
Arduino	UNO	1
LED	-	1
Jumper wires	M-M	3
Breadboard		1