

# POS Expression for Paper 2013 Question 6)c

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### 1 Components

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## 2 Hardware

1 Make connections between the Arduino and LED using Breadboard.

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## 3 Software

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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	13	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