K-MAP for POS Expression

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Abstract

This manual shows how to use Arduino and LED to represent the K-MAP for POS expression for the function "G" shown in 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

1 Components

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

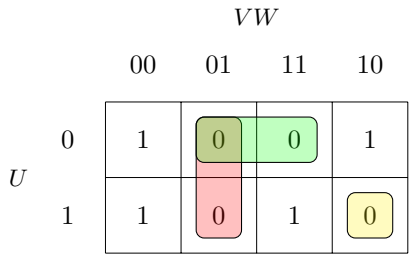
2 Hardware

Problem 2.1 Make connections between the Arduino and LED using Breadboard.

3 Software

Problem 3.1. execute the following program after downloading.

https://github.com/KrishnaYadati/Assignments/assignment2



K-MAP

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

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