

الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يُونِيسَيتِي إِسْلَامِيَّةٌ إِنْتَارَا بَغْسِيَا مَلِيسِيَا

Garden of Knowledge and Virtue

"Final project Report".

Traffic light

MCTE 2332 sec 1 semester 1 2020/2021

SUBMISSION DATE – jan 25 , 2021

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1713065

Objective

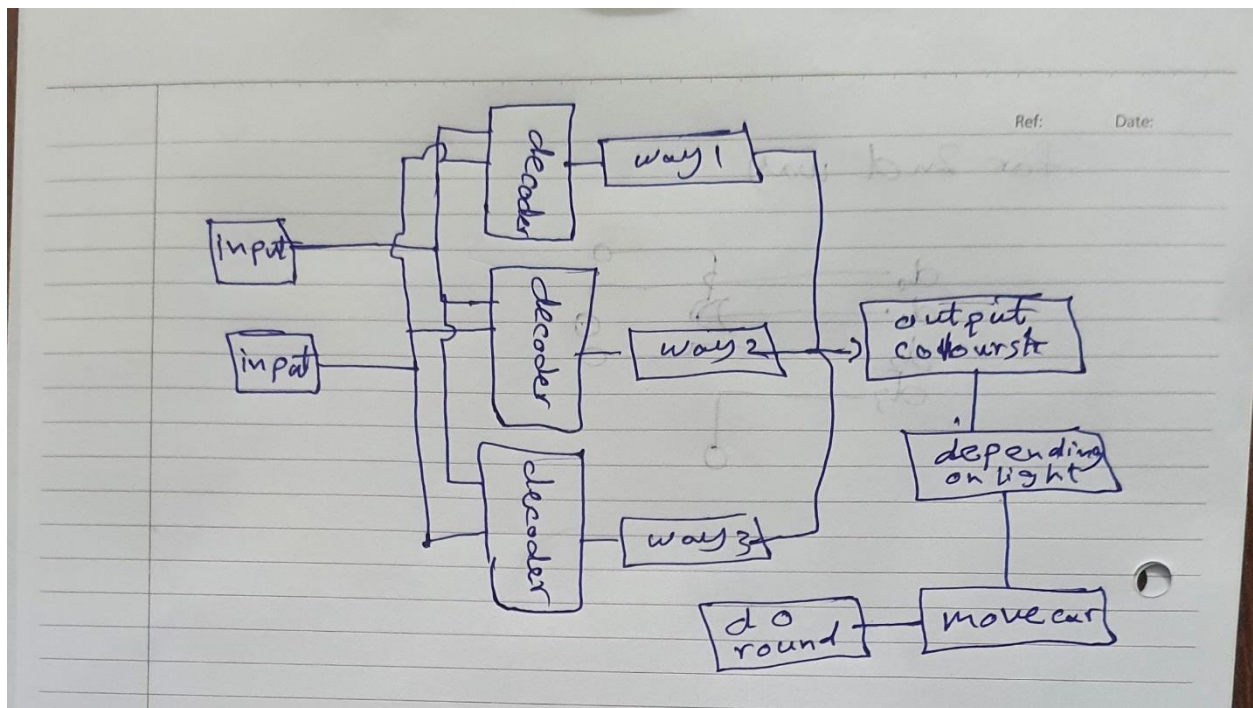
Traffic light for 3 ways

Used and understood the logic method and how its work

Logic is the way of understanding of pc. The pc understand only two sign high and low or 1 and 0. So, the system is understanding by pc is the numbers. And for human we transulate these sign to our language.

For this project I did traffic light for 3 ways and we may make it less or mre than this. But I did it specifically for my home twon as there is no traffic light there and it is three ways and cross walk light. I did it also manually because there is not that many cars , so the control will be under the shop fron og the three ways

So this is the state diagram for the traffic light



Project DLD

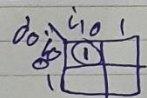
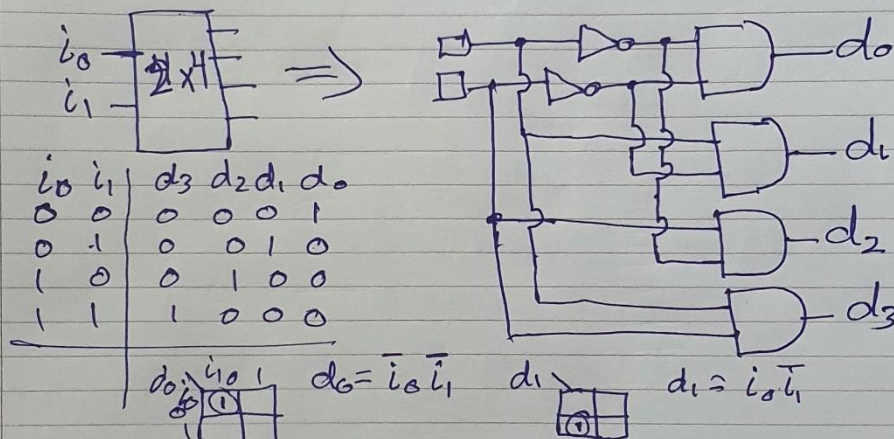
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Date:

As the circuit is too huge so I will do a short truth table and we may apply the same truth table for all ways with change the colours of LED

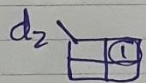
firstly for decoder which I sampled to normal circuit



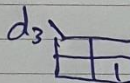
$$d_0 = \bar{i}_0 \bar{i}_1$$



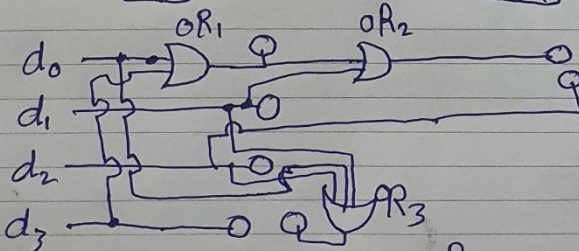
$$d_1 = \bar{i}_0 i_1$$



$$d_2 = \bar{i}_0 i_1$$



$$d_3 = i_0 i_1$$



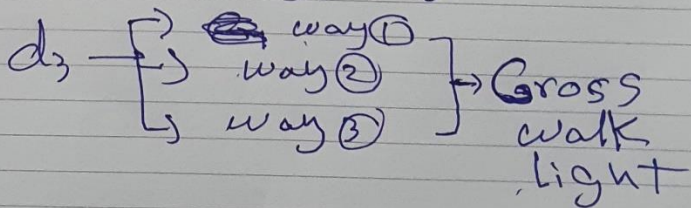
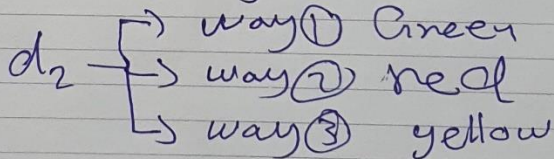
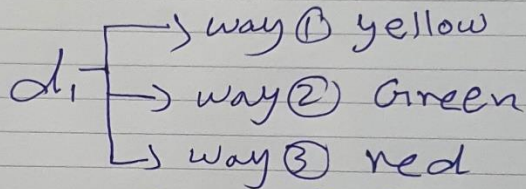
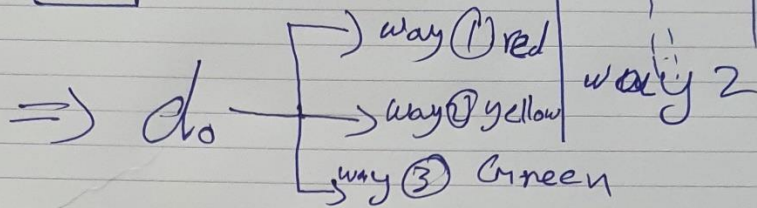
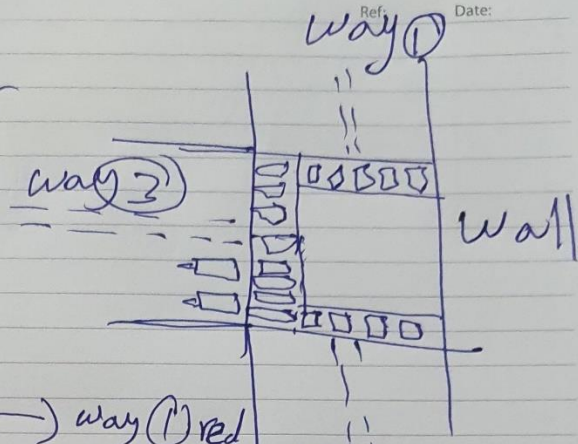
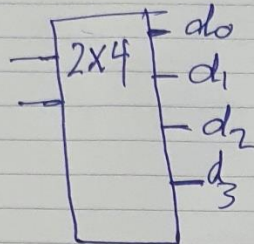
light will work only when it is 1 high

d_0	d_1	d_2	out
0	0	0	0
0	1	0	1
0	0	1	1
0	1	1	1

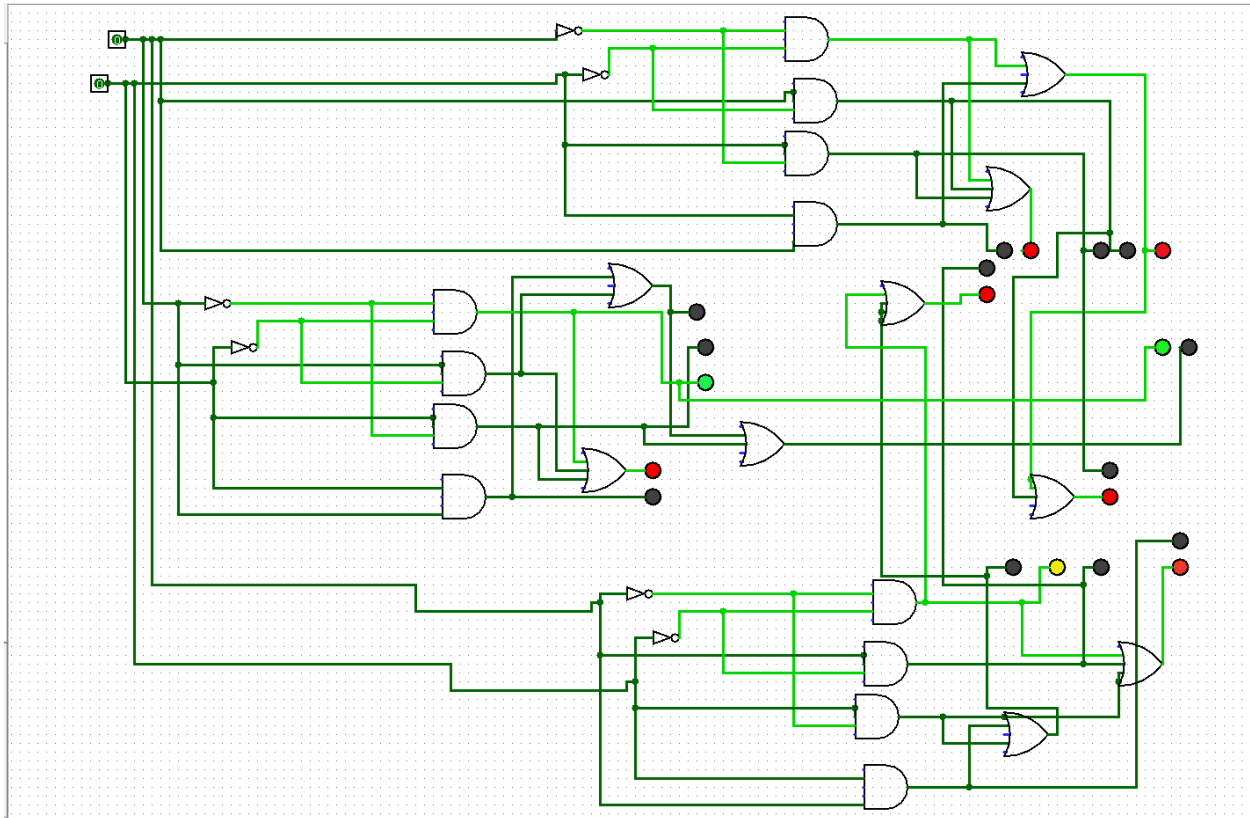
d_0	d_3	out
0	0	0
0	1	0
1	0	0
1	1	1

d_0	d_1	out
0	0	0
0	1	0
1	0	1
1	1	1

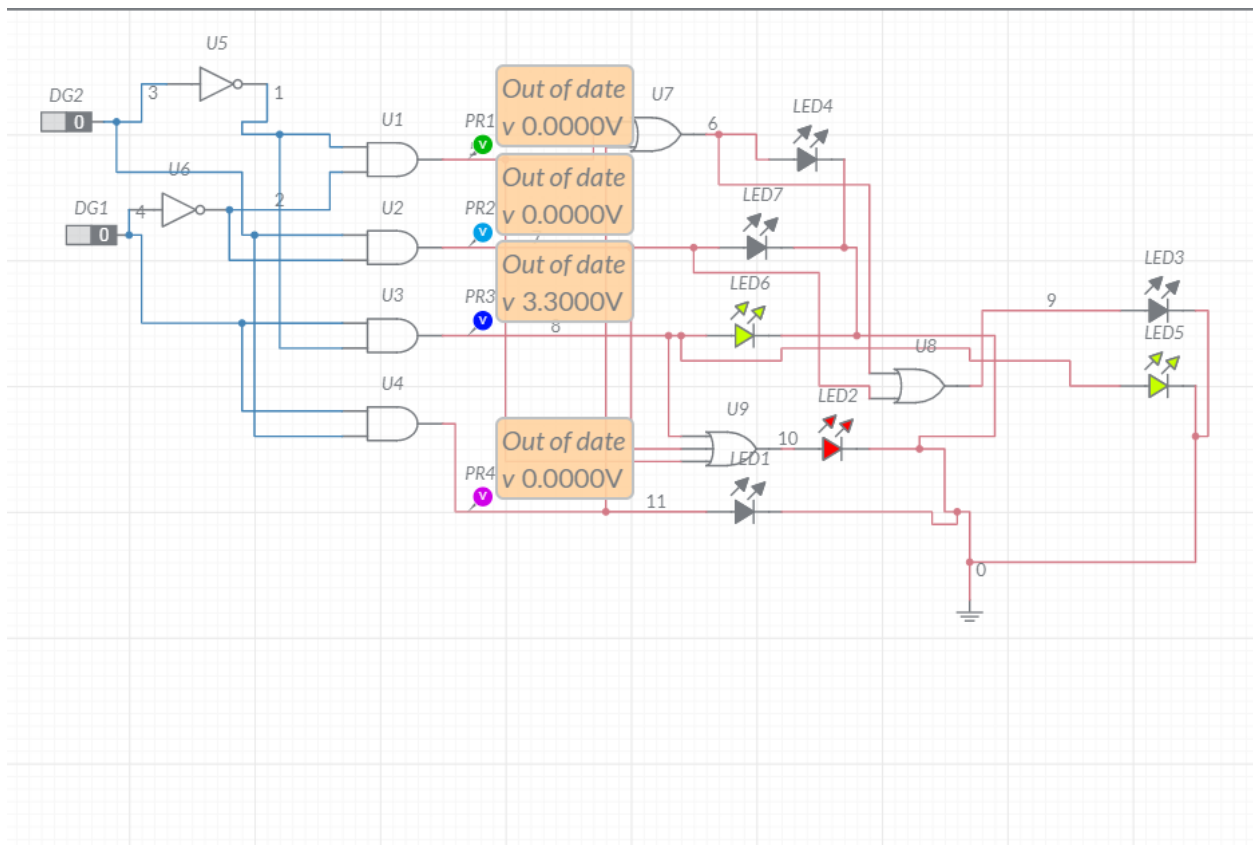
Decoder



I used 2 constant input and 3 decoder 2x4 then for the out put I put or gates of three inputs for red cross walk light and or gate for red when the cross walk light is on and the same principle goes for the others ways by changing the output.



And lastly for verification, I do one way in multism because it is not allowed me to have more components



In conclusion, all topics are understood and prove for this subject. The traffic light by using the logic method has been worked. And the accident was reduced in these places because of the traffic light