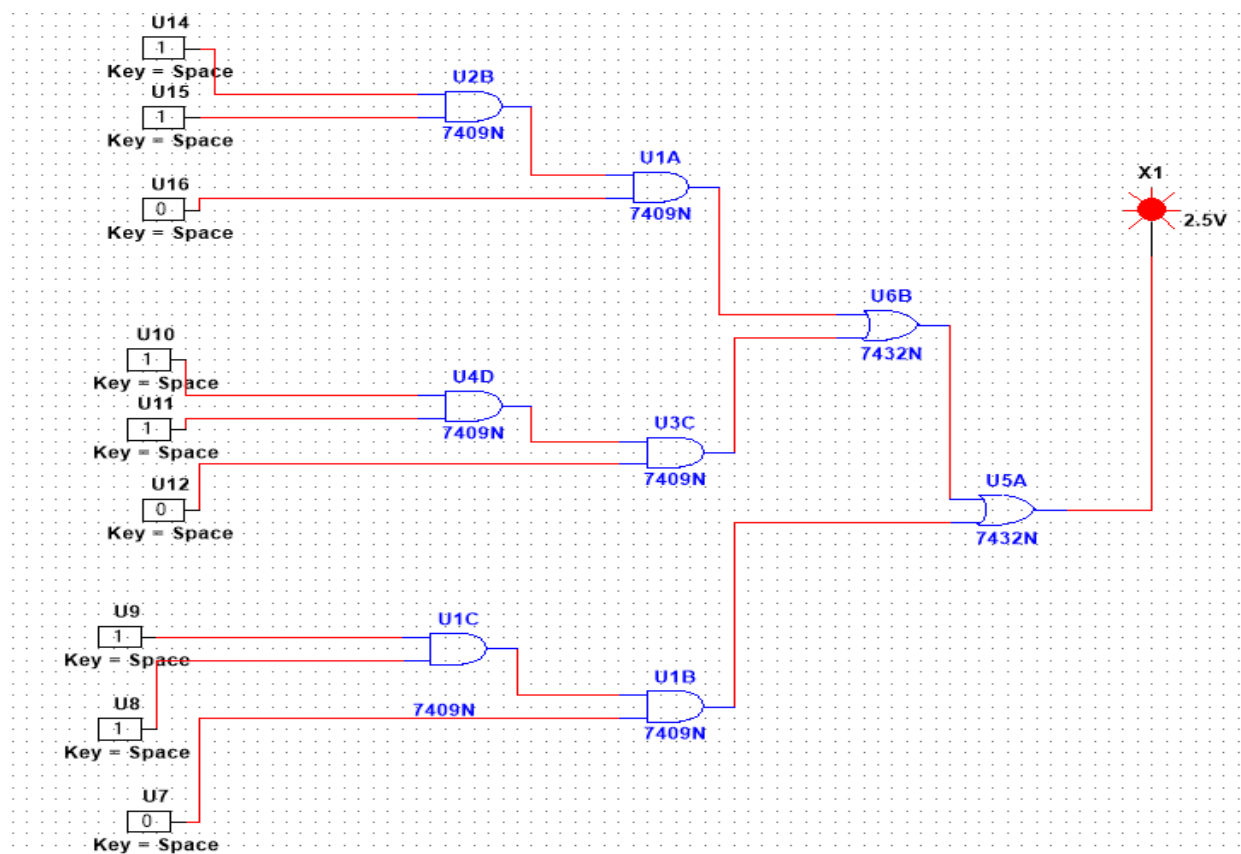


Questions:

1. State the operation of the 2 of 3 Logic Controller and explain how it works.

An explanation of how a 2 of 3 Logic Controller works is basically that when all the 3 inputs are high(1) then in that case the output should be low, only when exactly 2 out of 3 inputs are high then the output will result in high, other than that, you will get an output of low as shown in the table below.

A	B	C	Y
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	1
1	1	1	0



2. How would you make a 3 of 4 Logic Controller?

$$F = \overline{A}BCD + A\overline{B}CD + AB\overline{C}D + ABC\overline{D}$$

Then we simplify to $F = ABD + ABC + BCD + ACD$

