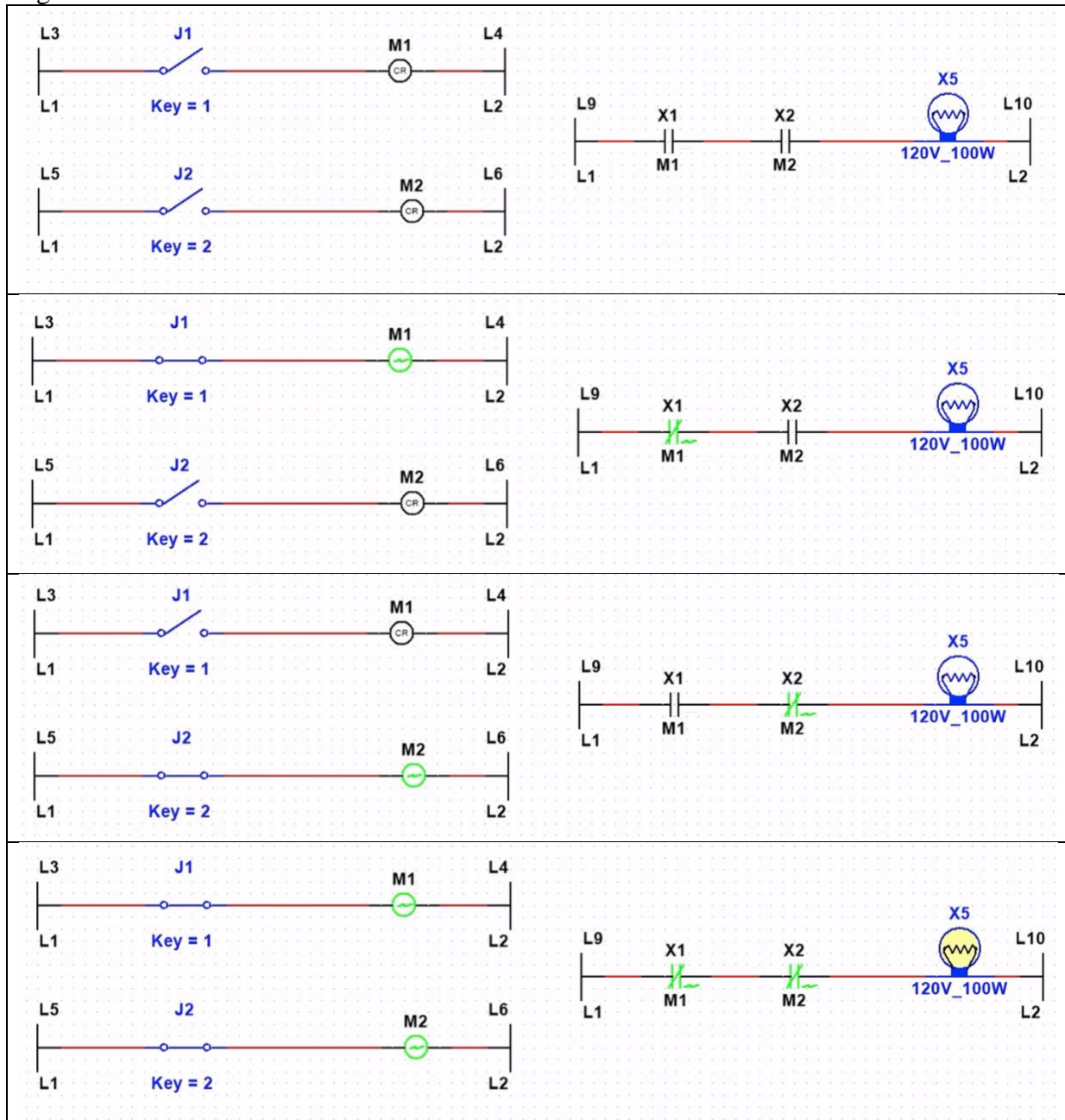
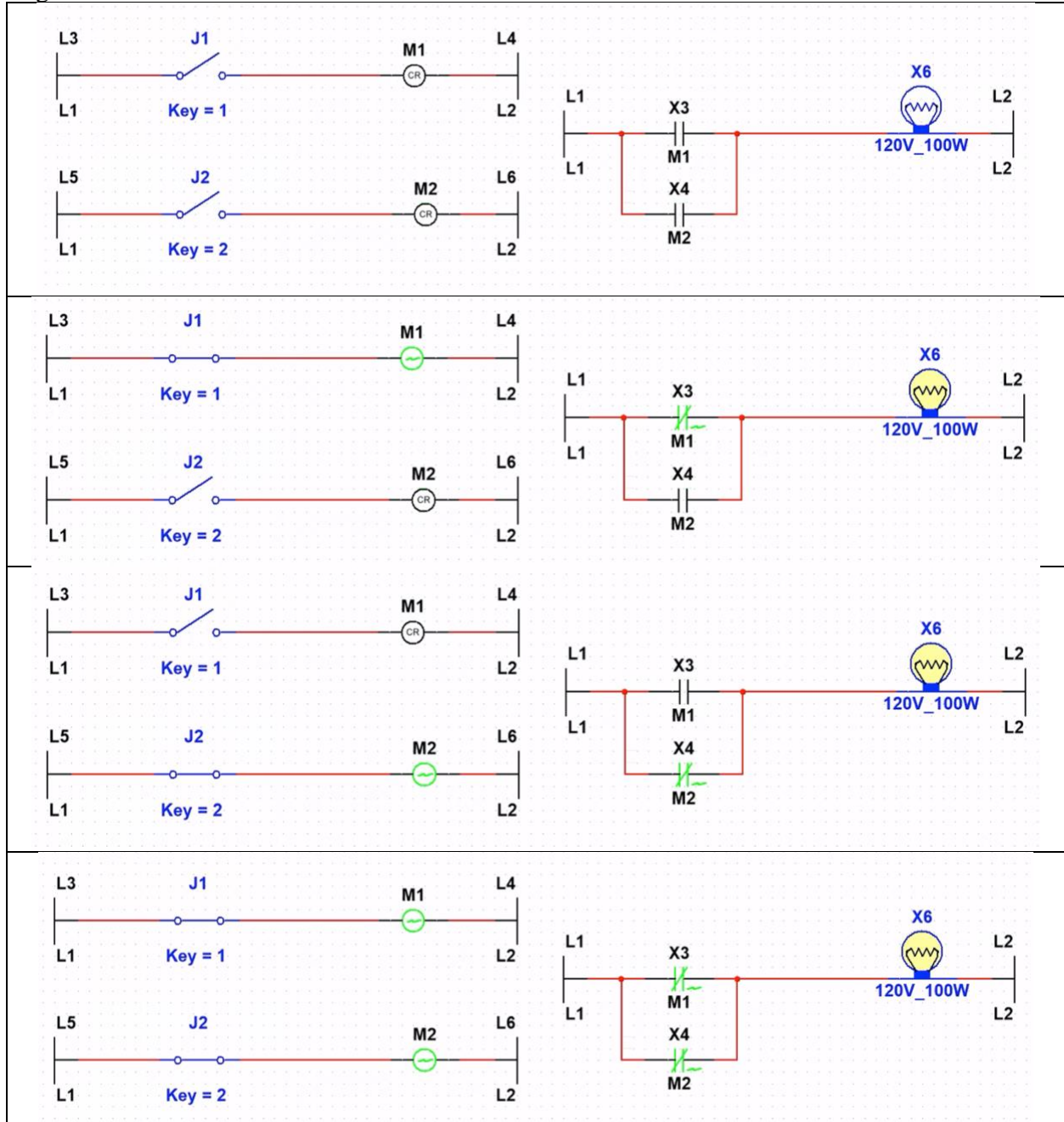


## Laboratory 04 – PLC Laboratory

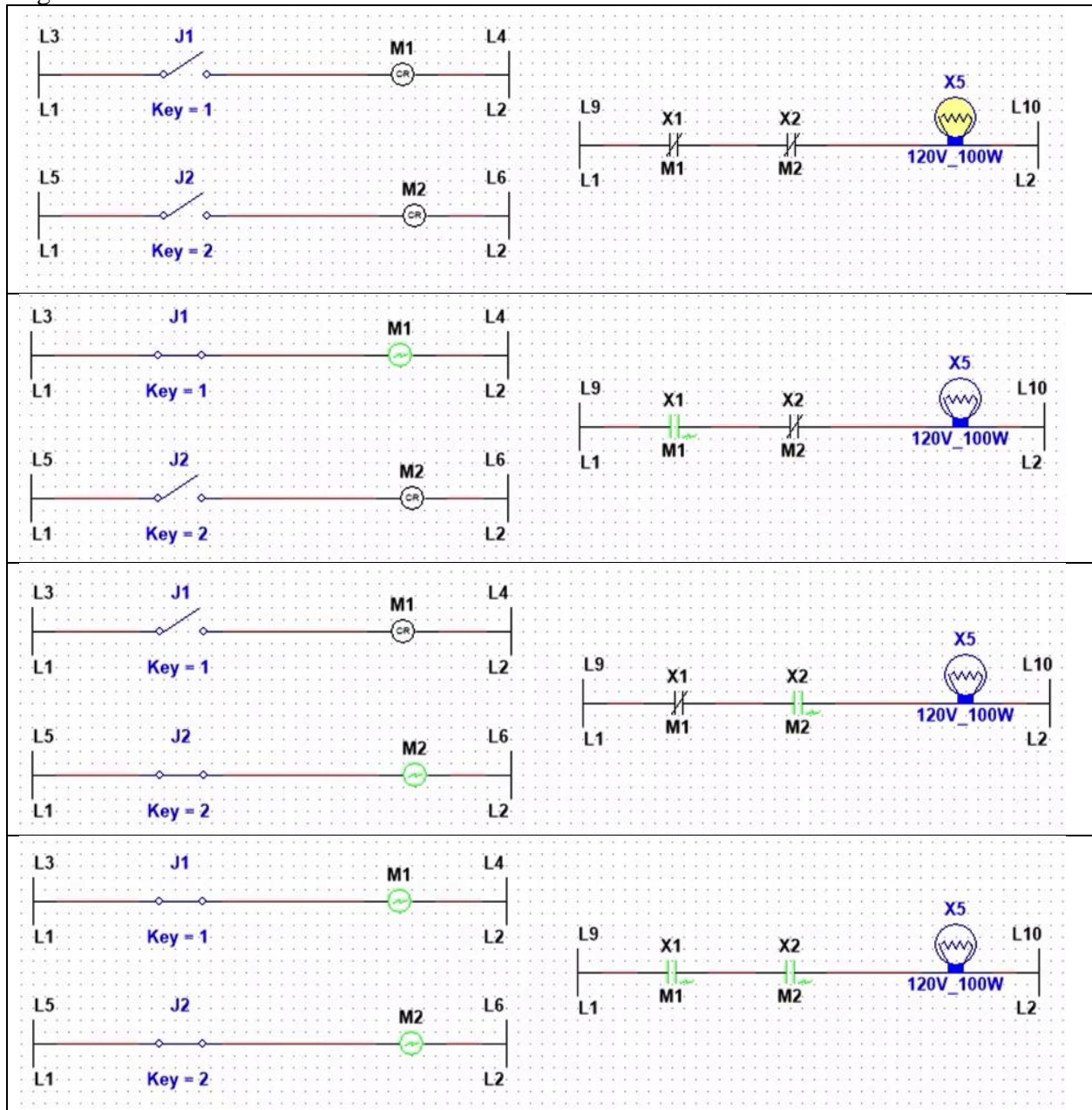
### Logical AND



## Logical OR

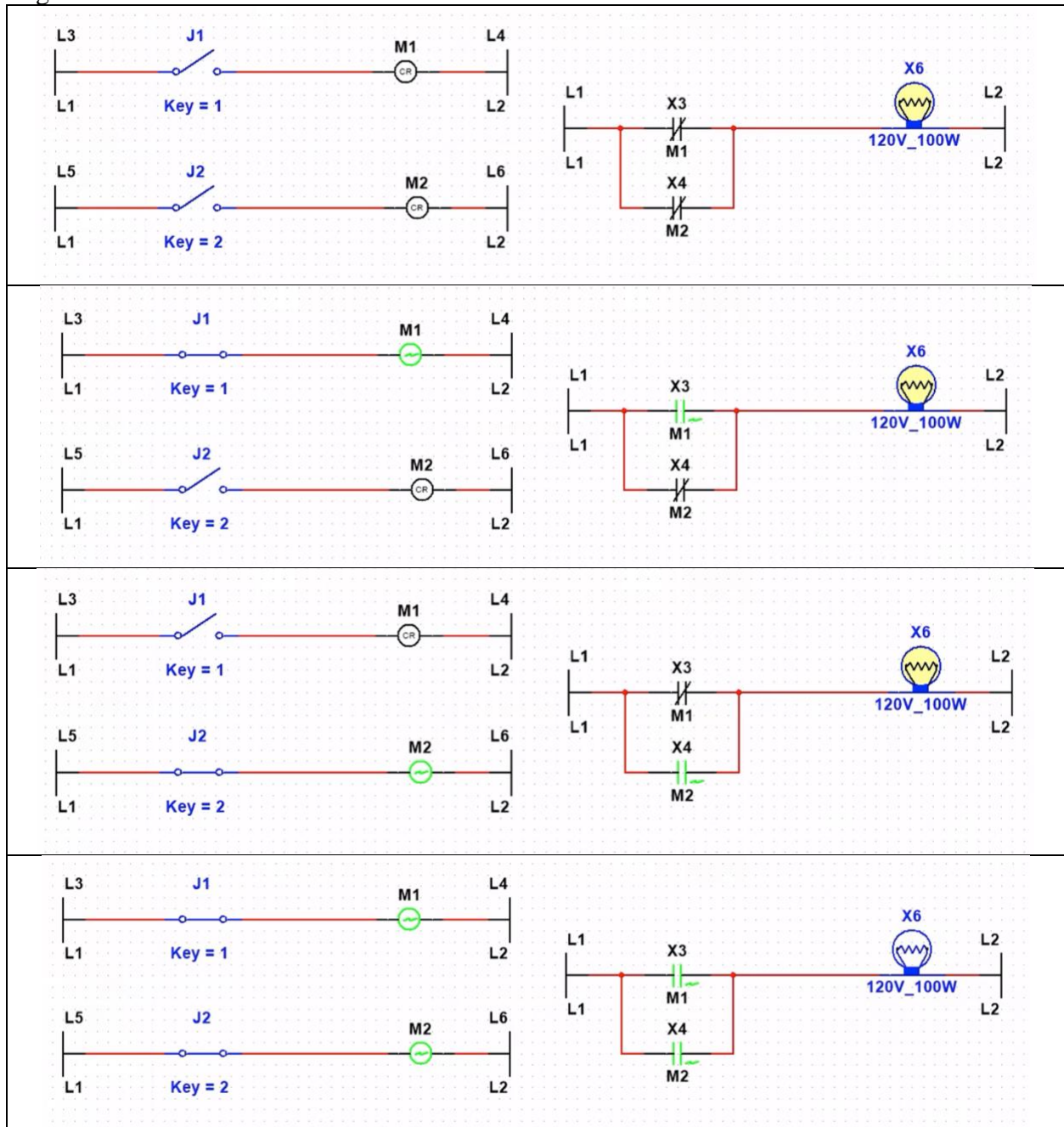


## Logical NOR





## Logical NAND



## Working Industrial Application: CLAW MACHINE

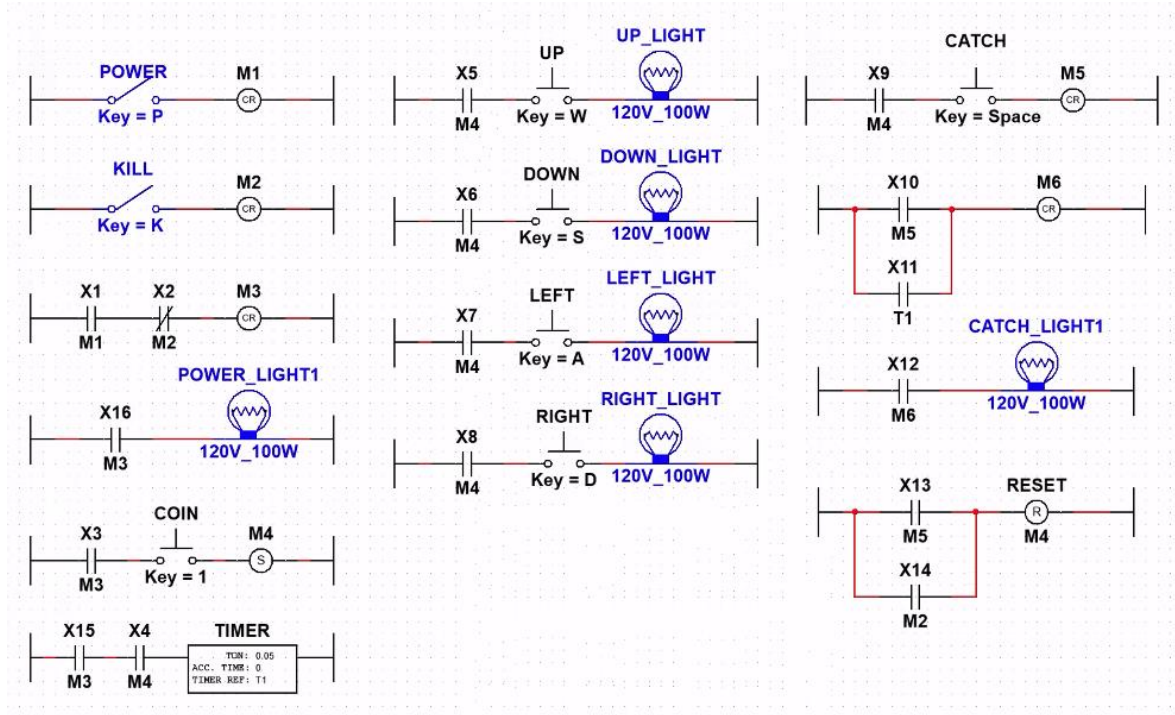


Figure 1. Ladder Diagram for Claw Machine

The figure above shows the full diagram for Claw Machine that I created. The first row shows the main power and kill switch that powers the whole machine. We can see that there's the POWER\_LIGHT which lights up the whole machine indicating it's working. The next one will be the COIN push button where it sets the timer and allow the user to use the main features controlling the claw. It also starts a TIMER that limits the user to use the controller for a certain amount of time. On the other hand, the SPACE push button allows the user to grab when it lights up the CATCH\_LIGHT indicating it use the feature. Lastly, the RESET allows to reset M4 that allows the user to control and the timer. This reset only activate when the space button pressed or the timer ends.

Here is the whole simulation of the Claw Machine: <https://youtu.be/7gZJa6TObRA>