

Password Based Door Lock System

Group No:- 07

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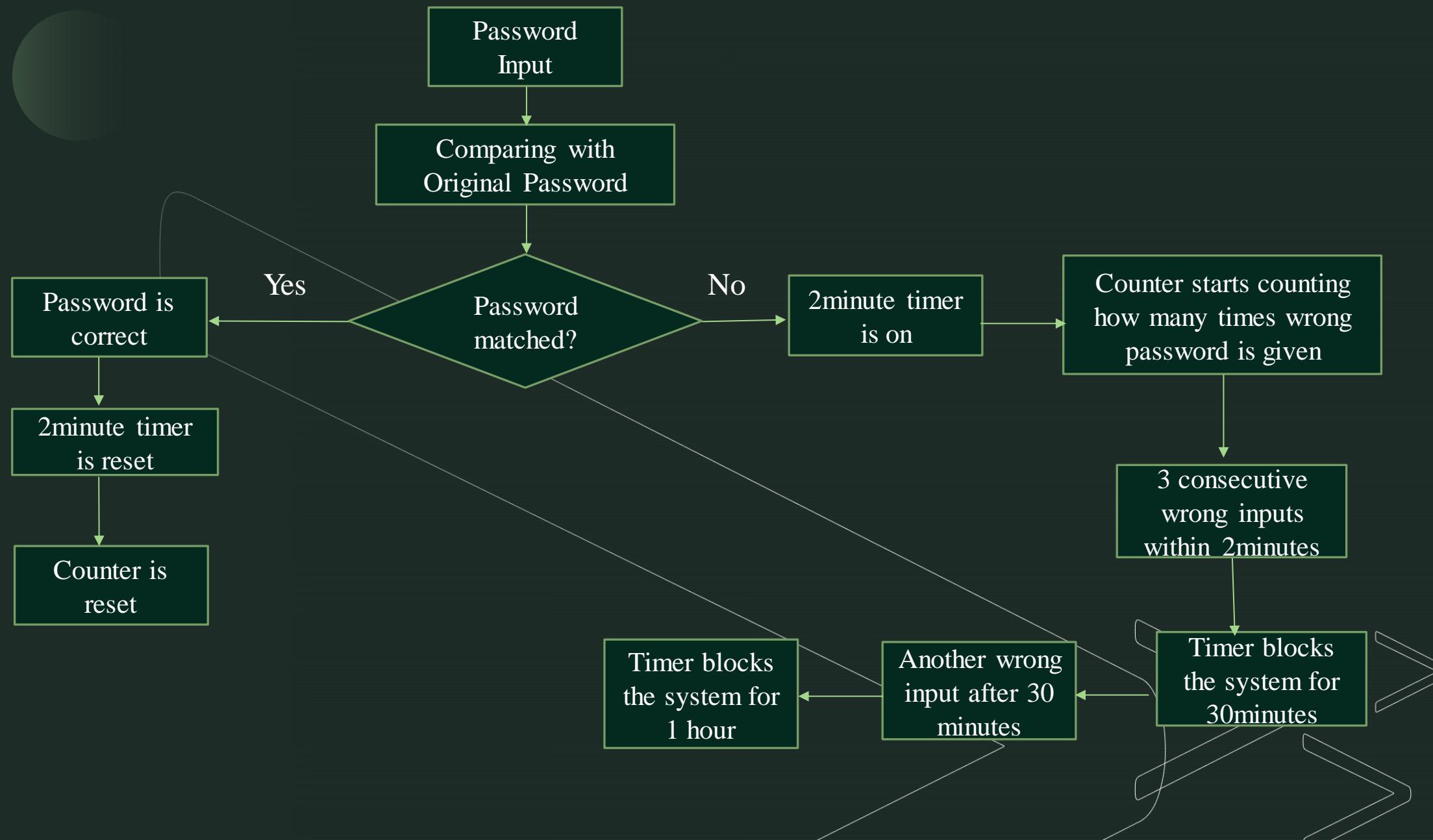
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Components:

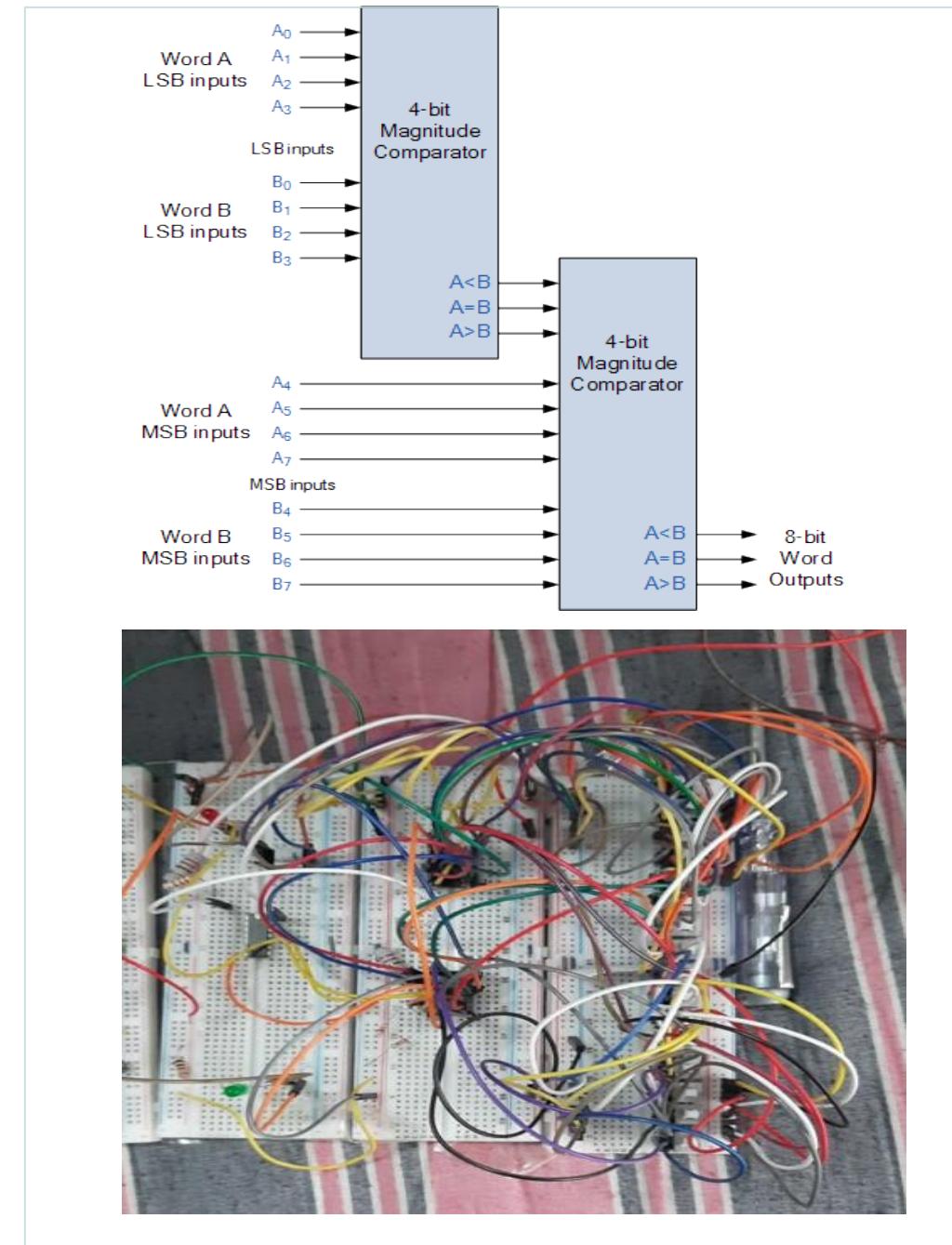
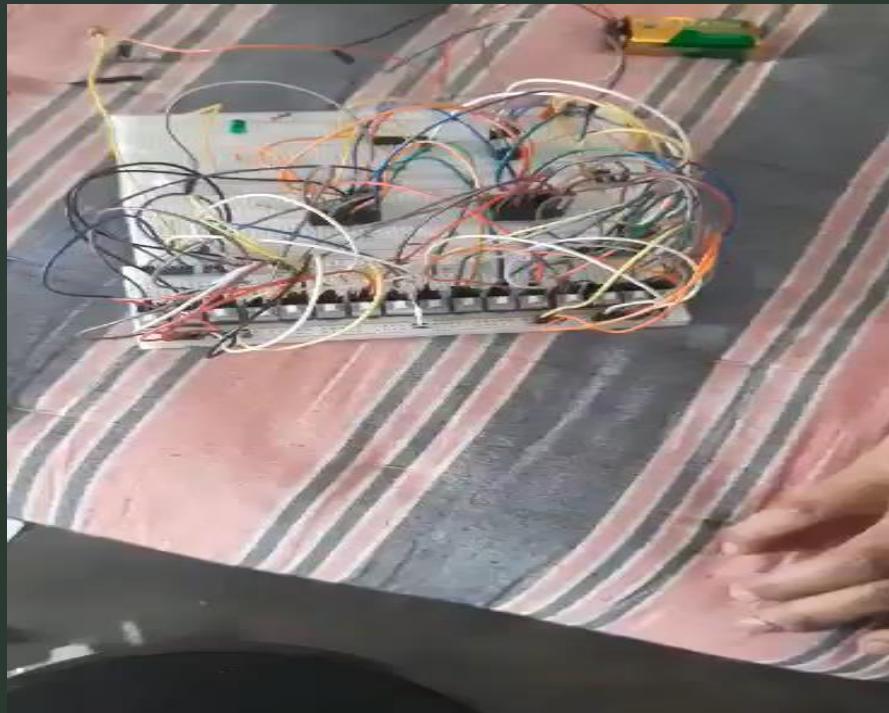
- Push Pull Button
- 9V battery
- IC 7485
- IC 4017BE
- 555 timer IC
- IC 7408
- IC 7432
- Resistors
- Capacitors
- Breadboards
- Jumper wires

Block Diagram:



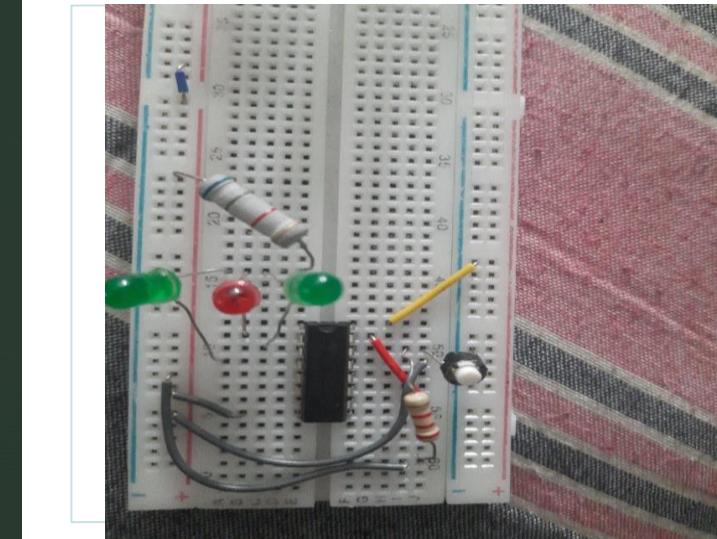
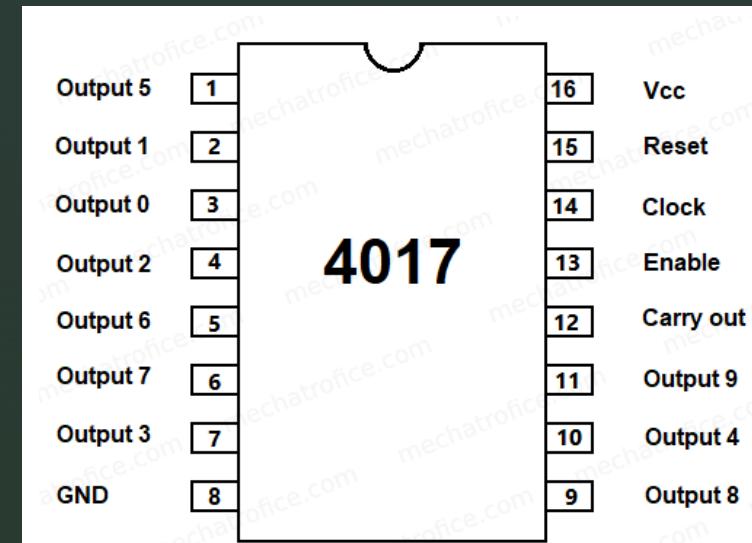
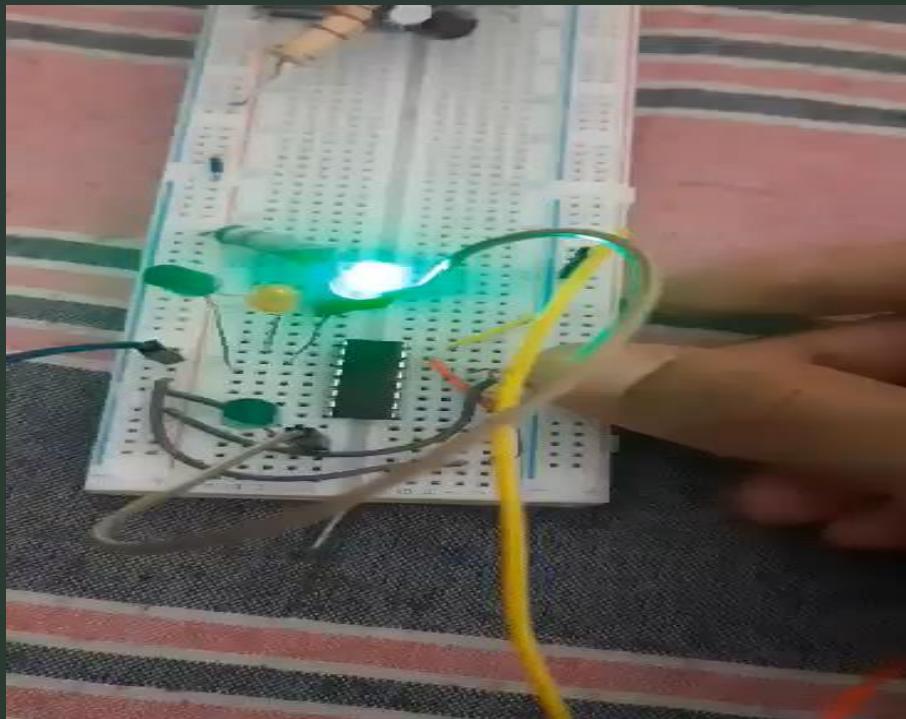
Comparator:

- ❖ Original password is set by 8 push pull buttons.
- ❖ Input password is taken by another 8 push pull buttons.
- ❖ Two 4-bit comparators (IC 7485) are cascaded to build an 8-bit comparator.



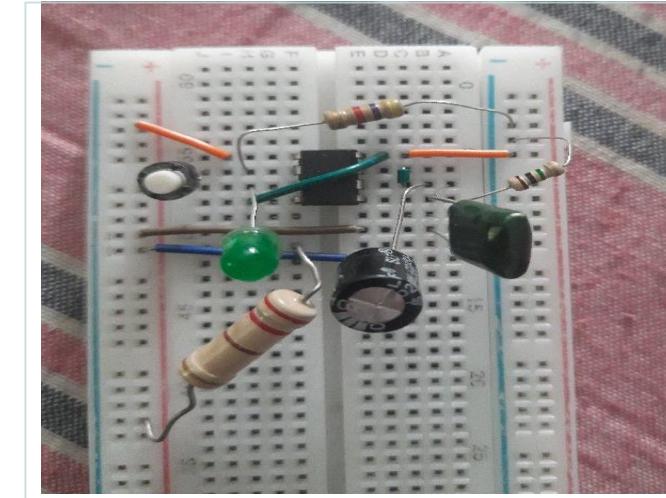
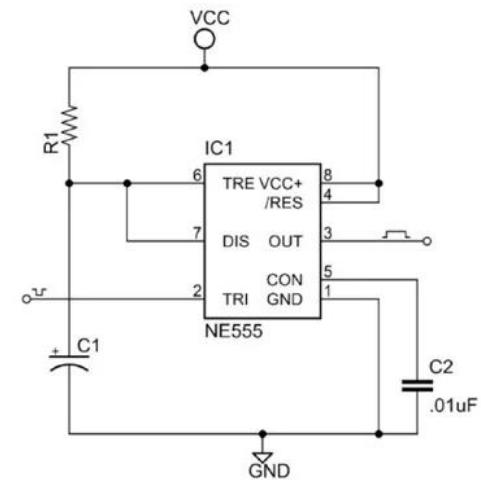
Counter:

- ❖ We have used a decade counter (IC 4017) in this project.
- ❖ Counter starts counting when wrong password is given as input.
- ❖ Whenever right password is given, the counter is reset.



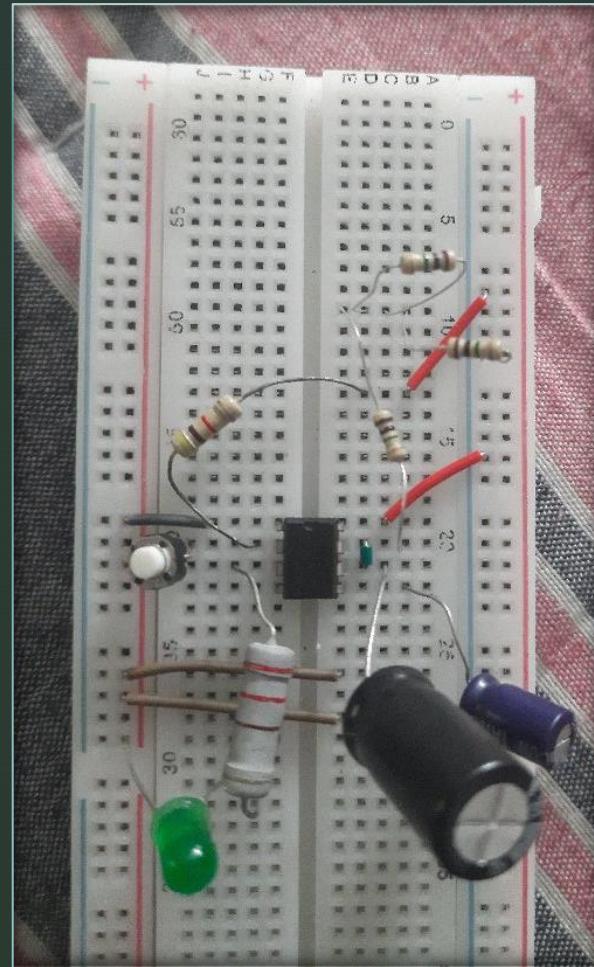
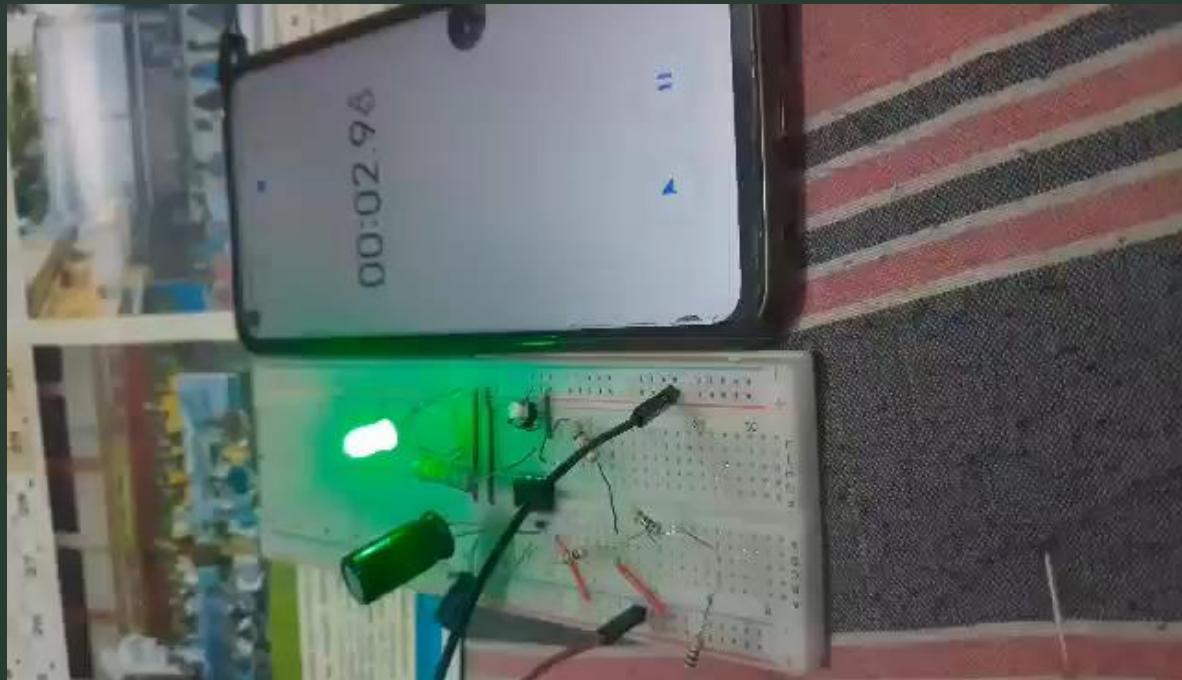
2minute timer:

- ❖ We have used 555 timer IC in this project.
- ❖ Whenever wrong password is given to the system, this timer becomes on along with the counter.
- ❖ For 2minute time delay, 1Mohm resistor and 100uF capacitor are used.



30minute Timer:

- ❖ This timer is used whenever 3 consecutive wrong passwords are given within 2minutes
- ❖ This timer blocks the system for 30 minutes
- ❖ For 30minute time delay, 3Mohm resistor and 470uF capacitor are used.



1 hour timer:

- ❖ This timer is used after the 30minute timer.
- ❖ When another wrong password is given after 30minutes, it blocks the system for 1 hour.

Hardware Demonstration

Thank You