

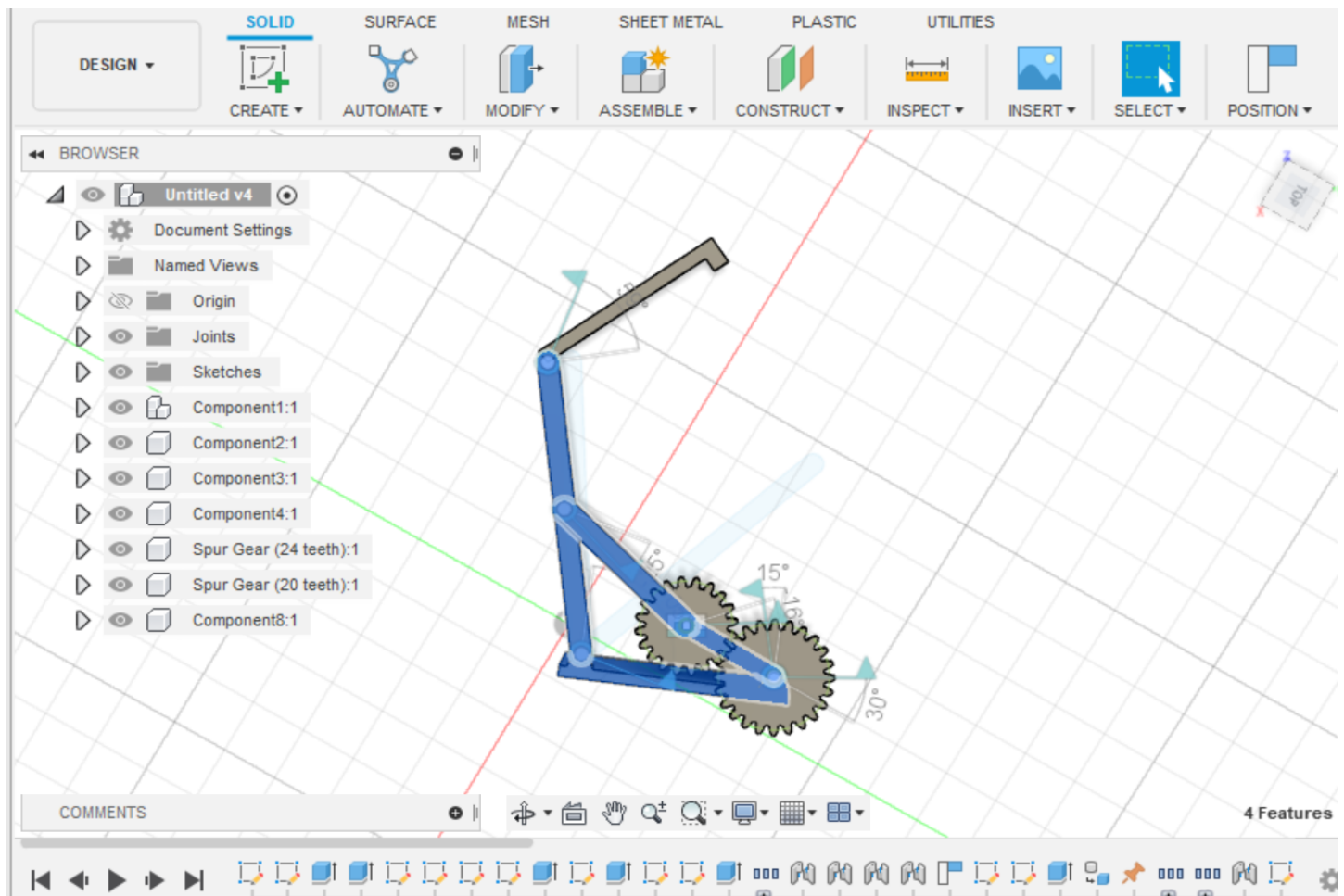
# MECHATRONICS LABORATORY

## Assignment-3(555 Timer circuit )

NAME- SOUMYADEEP PARDHAN

ROLL NO.- 21ME10080

### CAD DIAGRAM :



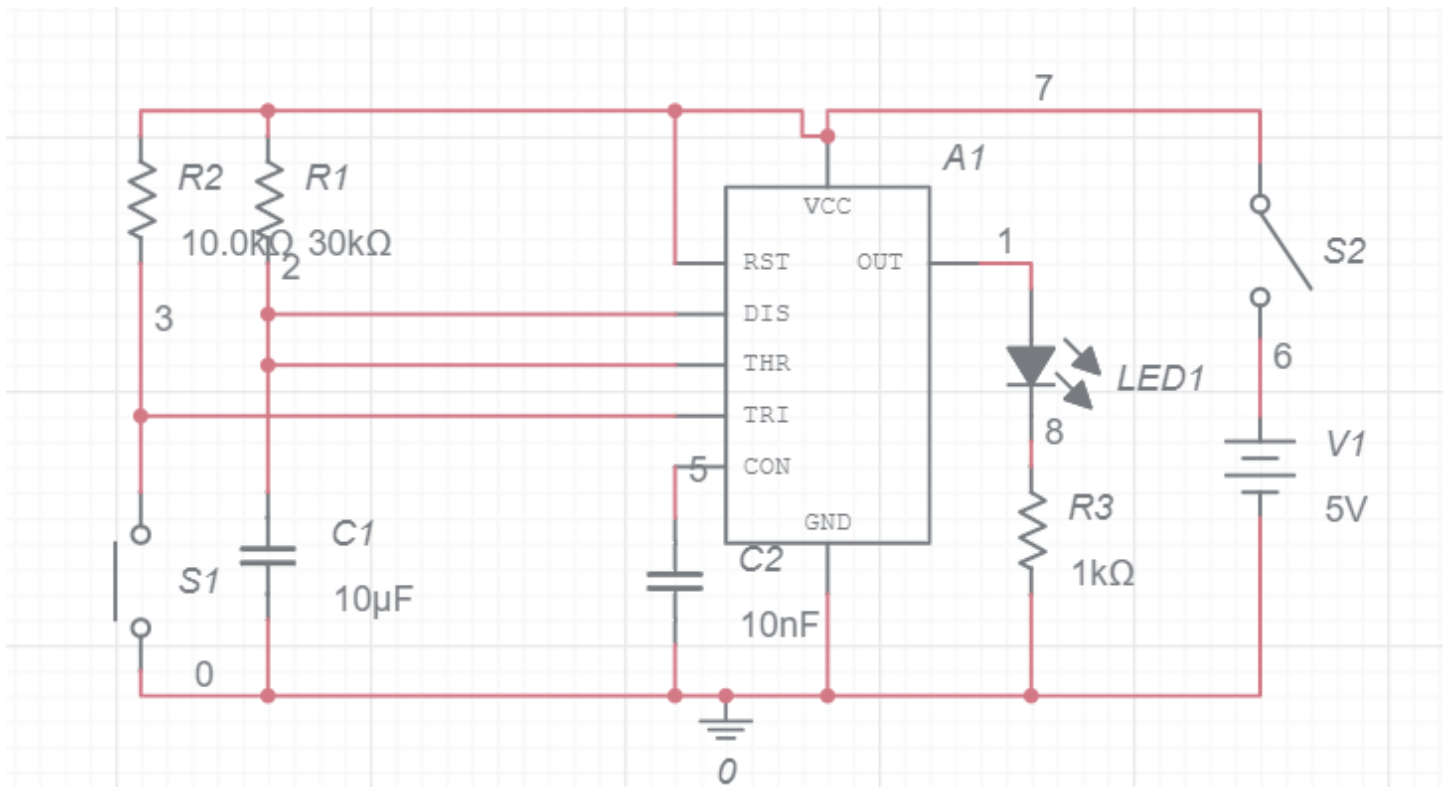
### PROCEDURE :

a) I first connected four bars in the four mechanism manner for a money saver toy. I joined a "L"-shaped bar that we could attach a toy dog to.

b) I used the "Multisim" programme to simulate circuits because there was no motor in the software, so I used an LED light in its place. Our goal is for our dog to enter the box in 1.5 seconds. In order to fulfill this requirement, I chose R1 and C1 such that  $5RC=1.5s$ .

For this reason, I used  $R1=30k$  ohm and  $C1=10\mu F$ .

## CIRCUIT DIAGRAM :



## WORKING :

The motor's spindle will first be connected to a larger gear to create a rotation. Our four bar mechanism will move thanks to a larger gear, which will be rigidly linked to a smaller gear that will do so in a revolutionary way.

The link between the "L" shaped bar and the big bar will be ensured by a spring, preventing the coin from losing its connection with the "L" shaped bar.