PROJECT REPORT
MINI SIGNAL GENERATOR

Team Members :

IMT2020511 - Sirigiri Sai Keerthan

IMT2020513 - Vishal Cheeti
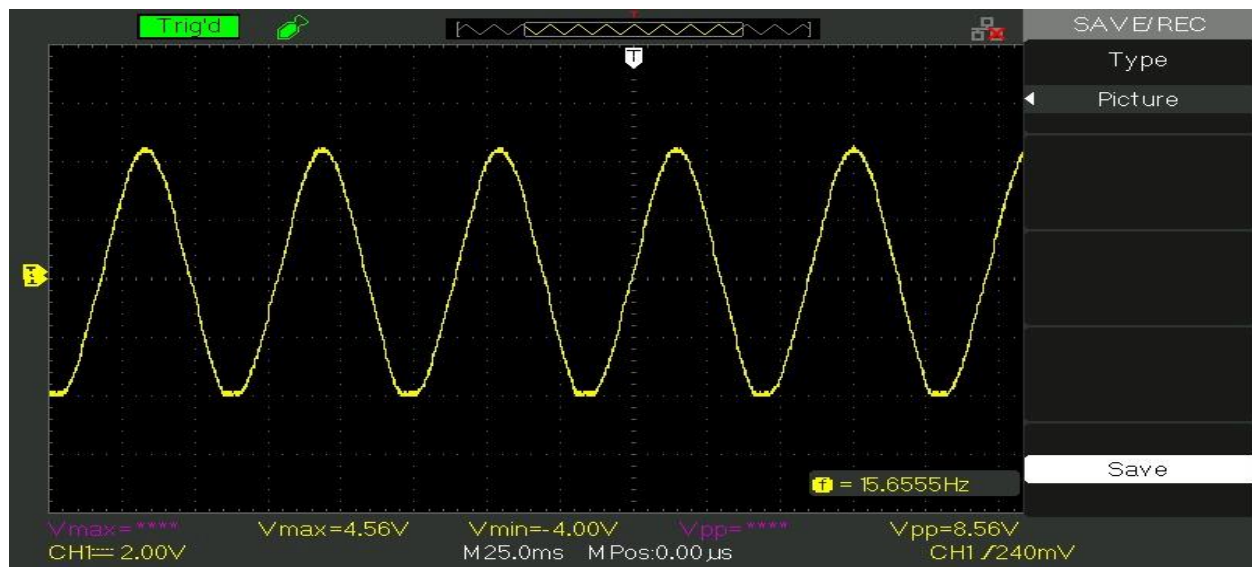
IMT2020533 – Dheeraj Sairam

IMT2020540 – Sasank Karamsetty
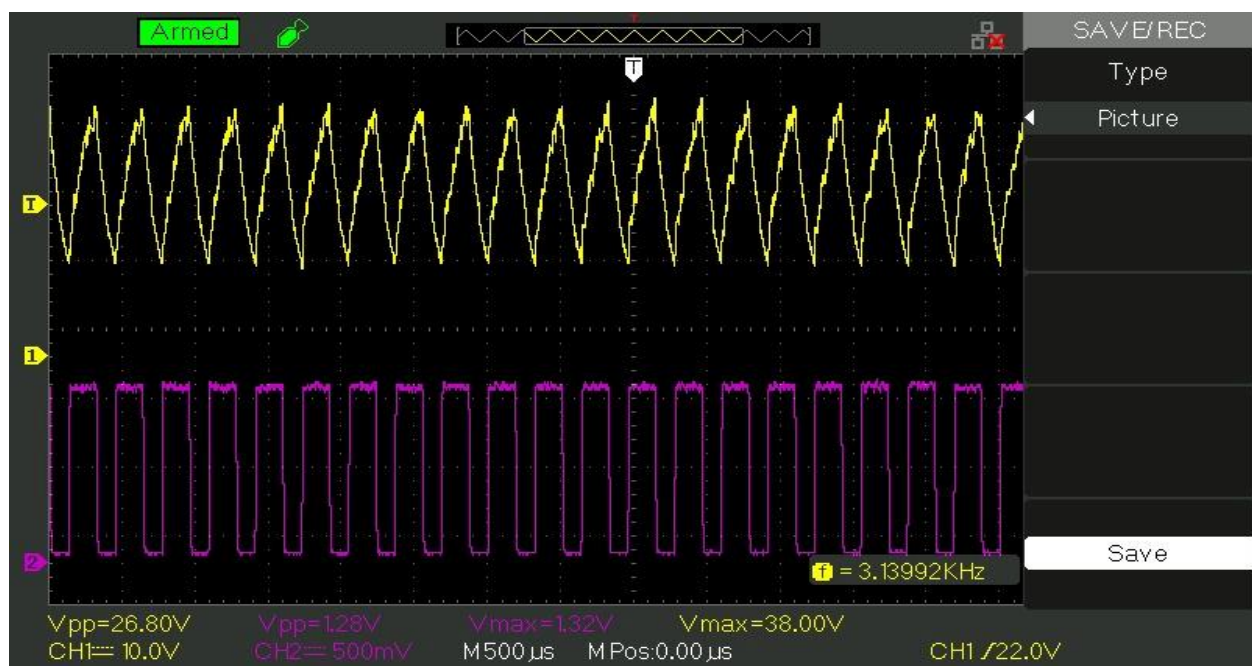
IMT2020541 – Vamsidhar Reddy

IMT2020555 – Ayyappa Koppuravuri

- We generated different signals using 555 timer chips
- We built a prototype which gives square,triangle,sine and cosine signals.
- We used potentiometers to adjust the amplitude of the signals.
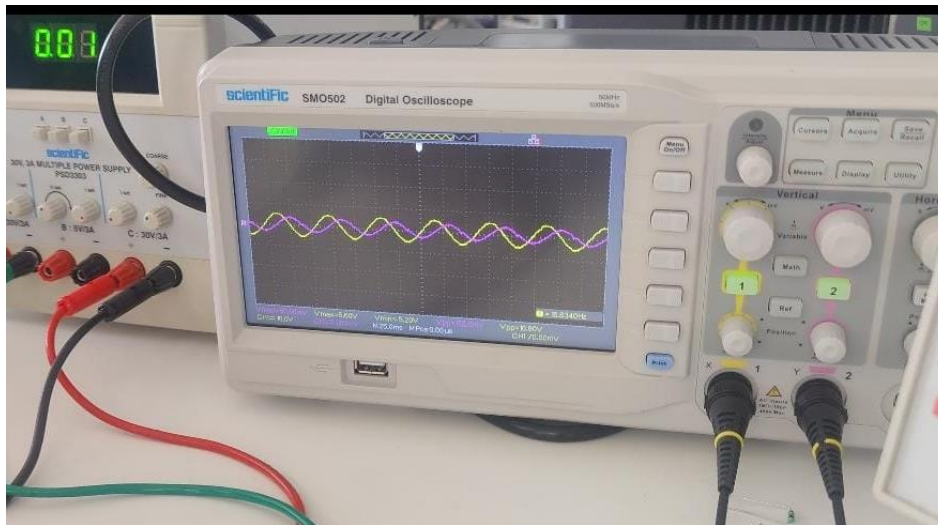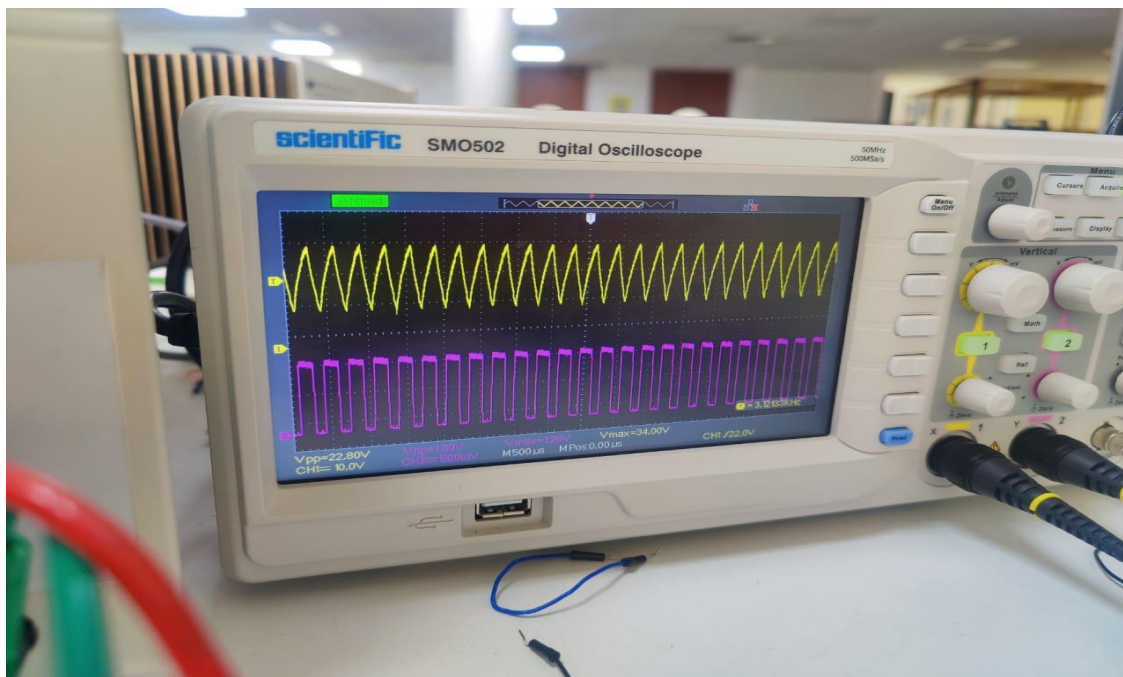- Later we used muxes to showcase our signals.

Sine Wave :
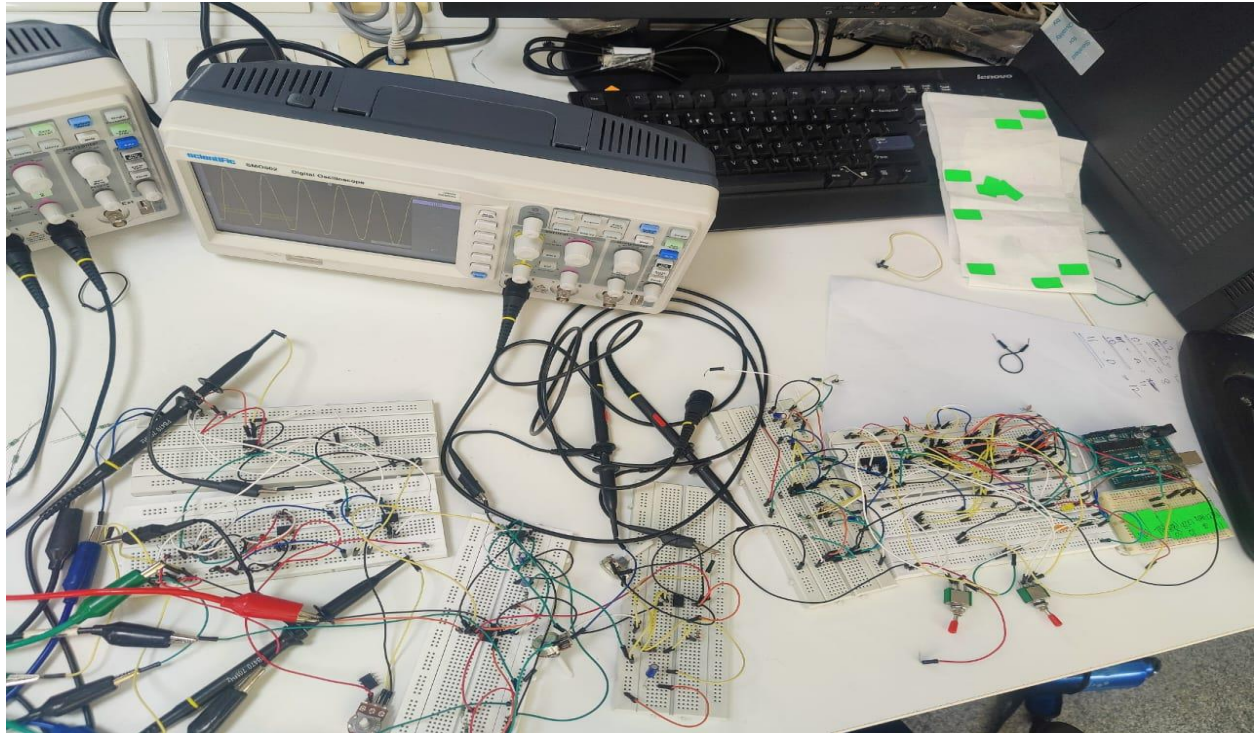

Triangle and Square Waves :
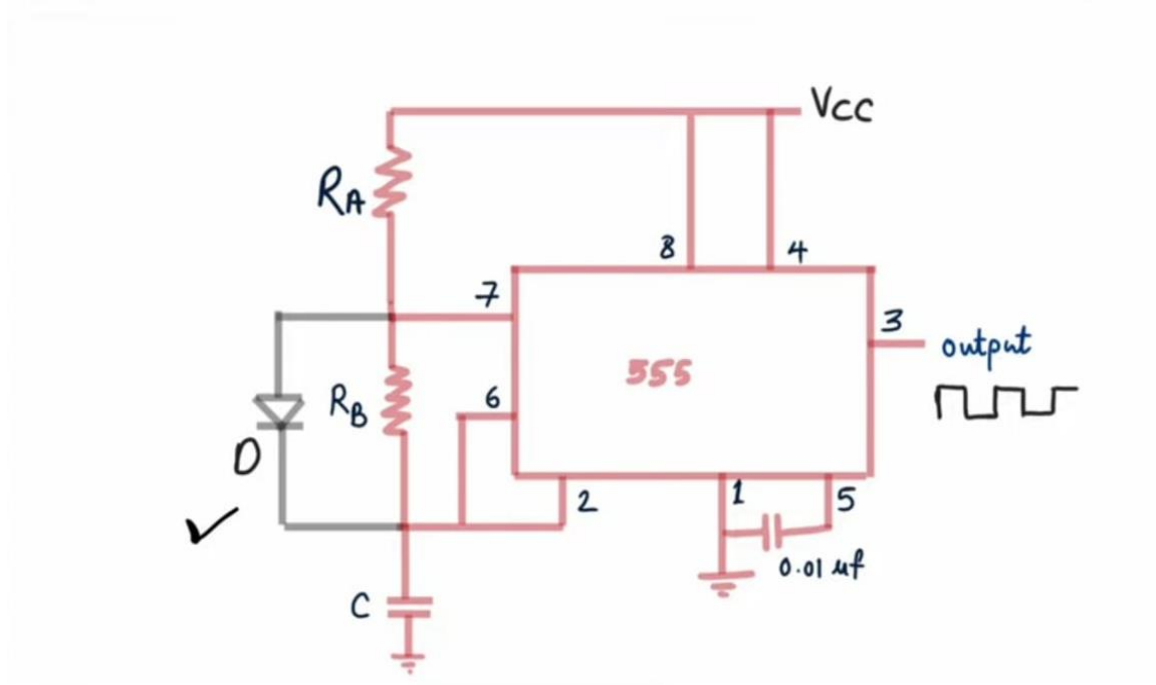
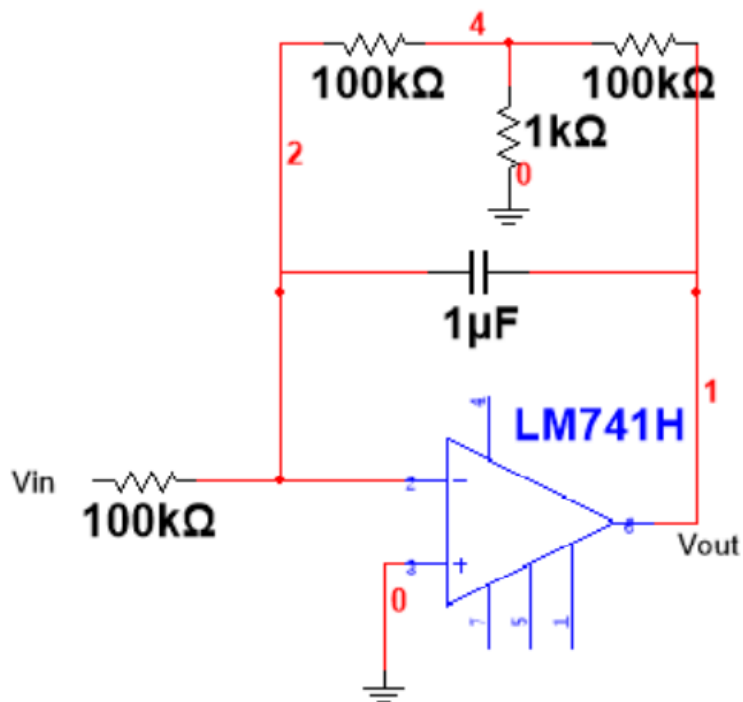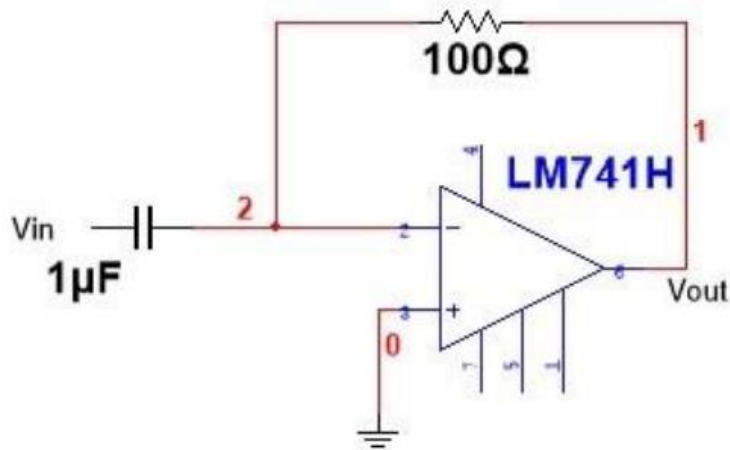Sine and Cosine waves :

Triangle and square waves :
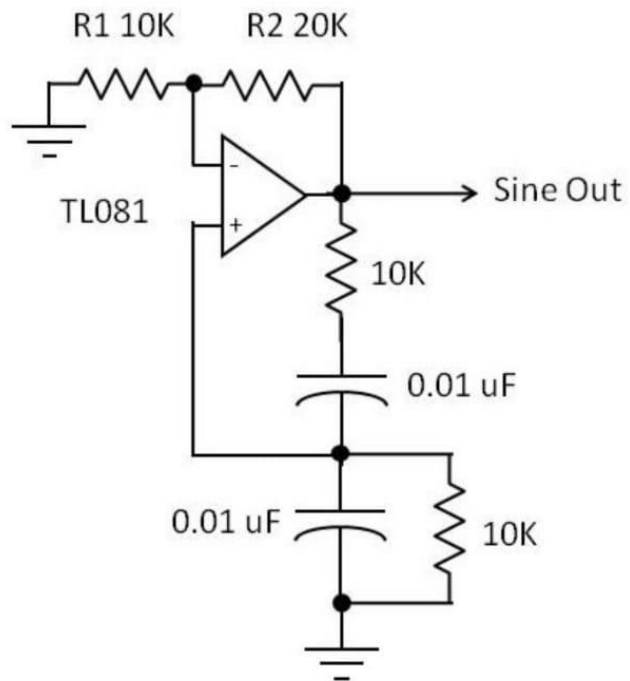
These are the circuits we built :-

Square wave :

Differentiator and Integrator circuits used :
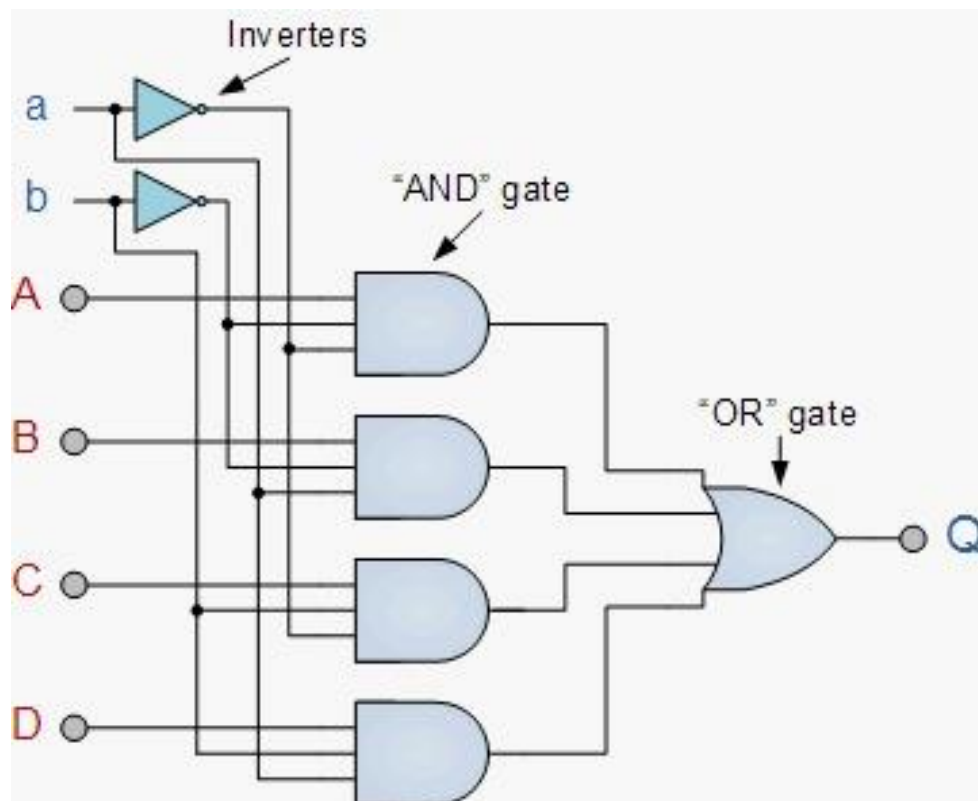

- We integrated square wave to get triangle.
- And we differentiated sine to get cosine wave.

Sine Circuit diagram :

R1 10K   R2 20K

TL081

→ Sine Out

10K

0.01 uF

0.01 uF

10K

Mux circuit diagram :

Inverters

a

b

"AND" gate

A

B

"OR" gate

C

Q

D

VIDEO LINK :

https://drive.google.com/drive/folders/1-K3fPfK962oh9Qc-nRzw2TsVdqehItAI?usp=sharing