

Team Assignment 3

SW Screenshots

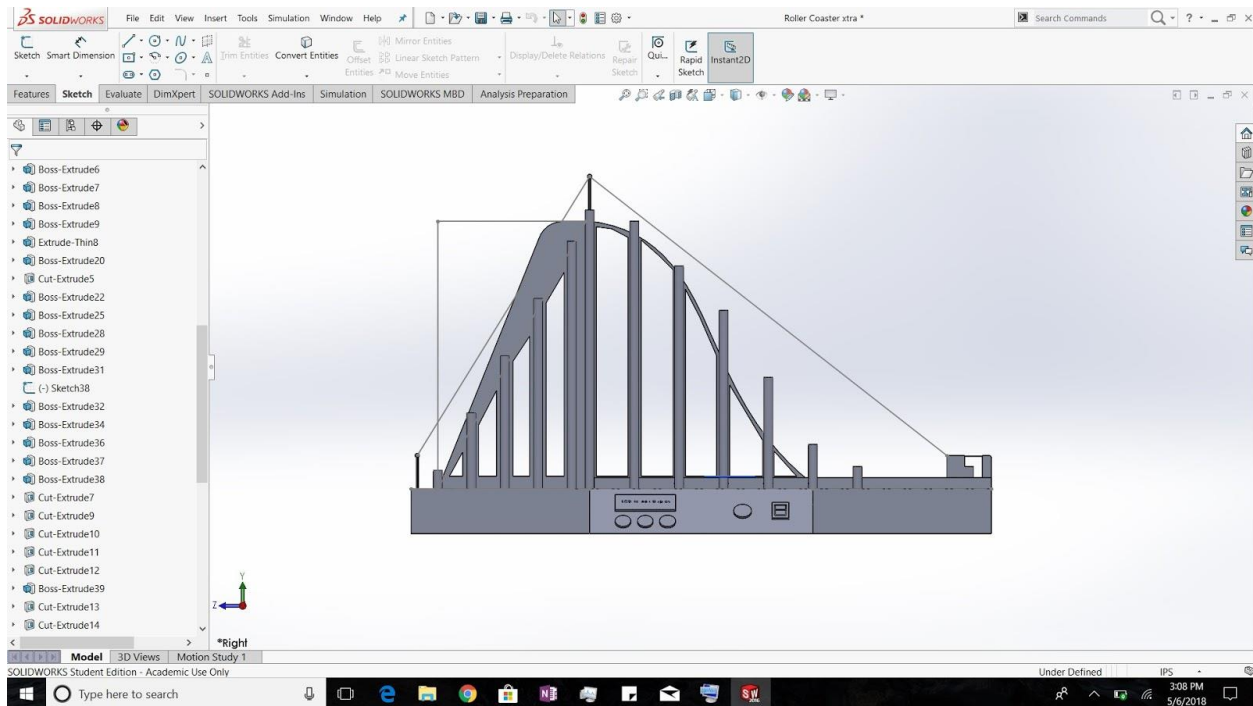


Fig. 1: Front View

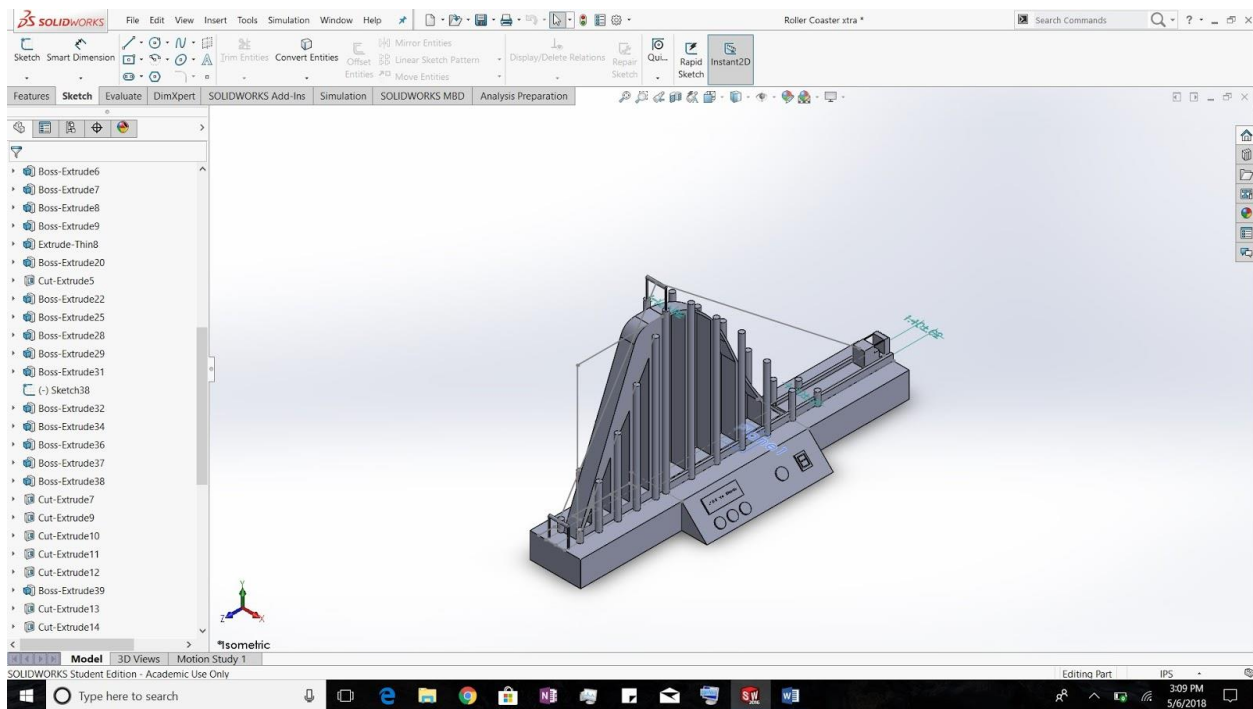


Fig. 2: Isometric View

Descriptions:

- Motor Encoder: each stop has a set number of rotation for the motor based on the encoder count
- Buttons: for each stop point/buzzer
- Buzzer: plays theme park rollercoaster music
- 7-segment display: counting 3,2,1 for the cart going up and the drop
- LCD display: says something about the stop
- Belt: rolls the cart up the ramp
- Pulley: pulls the cart back up after the drop
- LEDs: lights up ramp and signals the closeness to the drop

Extra Parts List:

N/A

Gantt Chart:

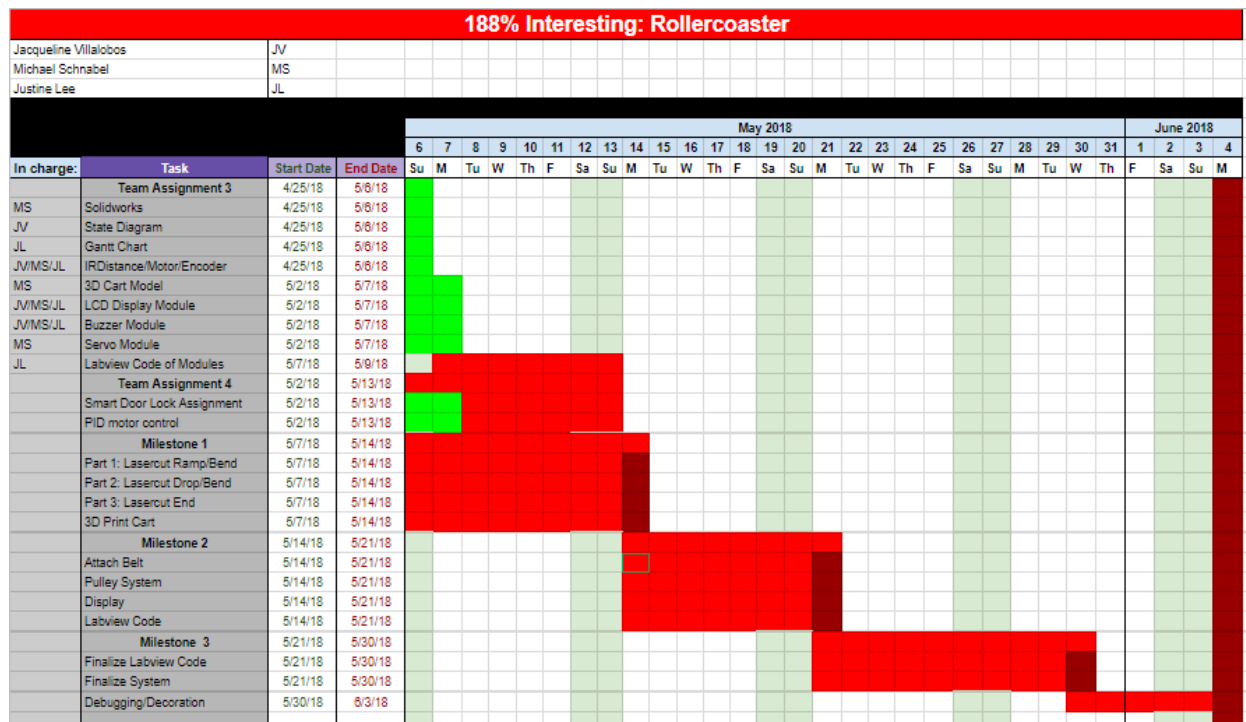


Fig. 3: Gantt Chart

State Diagram:

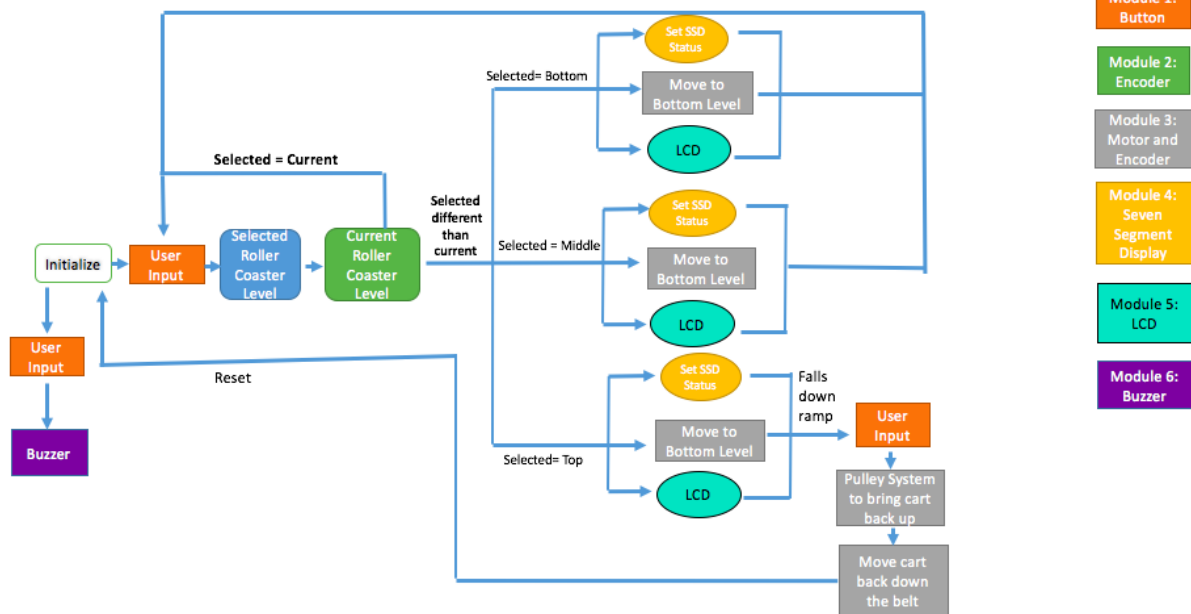


Fig. 4: State Diagram

Programming Assignment:

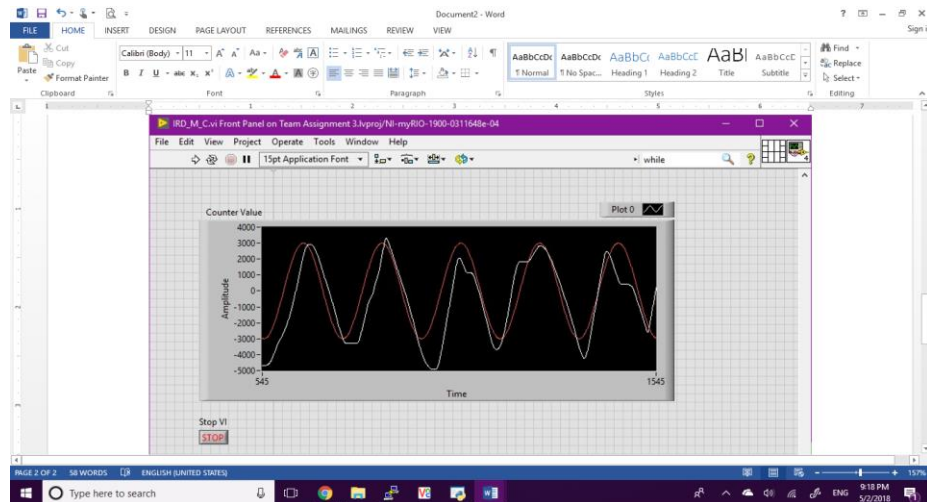


Fig.5 : Sinewave Screenshot