Circuit Simulation Project

https://esim.fossee.in/circuit-simulation-project

Name of the participant: Kartikaya Dwivedi

Title of the circuit: Vending Machine

Theory/Description: Vending Machine is a Finite State Machine. It has 3 items of MRP 3,4,5 Rupees and we have three types of Coin of 1,2,5 Rupees. It gives output as **:**

Dispensed(D): Tell whether the item will be dispensed or not.

Current State(S2, S1, S0): The amount of money already inserted in the Machine. It will represent the current state of the machine.

Change Amount(C2, C1, C0): It will represent the amount of money given change by the system.

Truth Table for implementation of the above algorithm is given in the given Spreadsheet:

https://docs.google.com/spreadsheets/d/1m-kNq5Yb_fHAPCKpy0zF3-KfnDNdo5c7BVs7sh_ZVH8/edit?usp=sharing

It takes Input as:

X1, X0: It represents the sum of money given to the Vending Machine.

Sandwich: We Will keep this Souce High if we want a Sandwich.

cold drink: We Will keep this Souce High if we want a Cold drink.

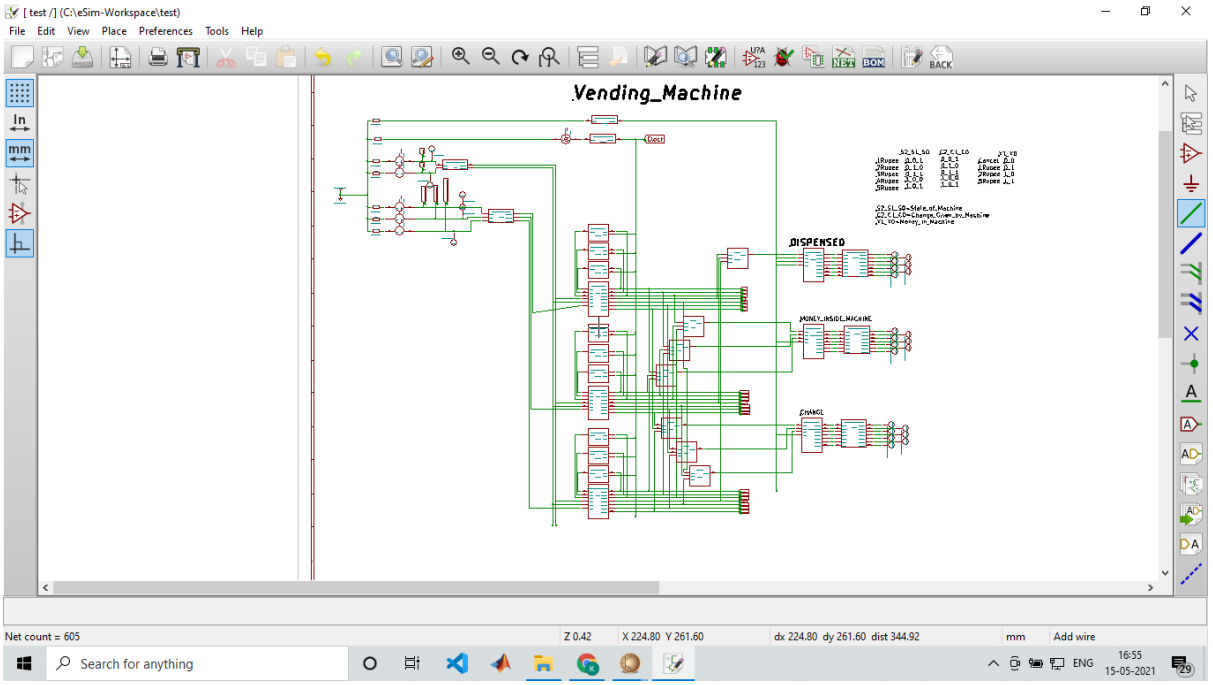
Chola_Samosa: We Will keep this Souce High if we want Samosa with Chola on it.

You can choose only one item at a time.

This circuit is also tested and simulated on Proteus 8.1, whose file is uploaded in Github.

https://github.com/c0d1ng-Devta/Fossee_eSim/tree/main/Vending_Machine/Proteus_Simulation

Circuit Diagram(s) :



Results (Input, Output waveforms and/or Multimeter readings) :

Source/Reference(s) :

1:)Spoken Tutorials -Esim

2:)Consilium Problem Statement.