Design of Digital Systems Laboratory
Lab 5
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By submitting this report, you attest that you neither have given nor have received any assistance (including writing, collecting data, plotting figures, tables, or graphs, or using previous student assignments as a reference), and you further acknowledge that giving or receiving such assistance will result in a failing grade for this course.
Your Signature:Jonathan Mazurkiewicz

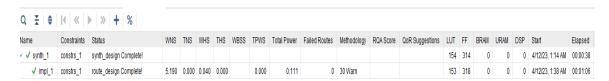
## **Simulation Results**

```
# set_property needs_save false [current_wave_config]
# } else {
# send_msg_id Add_Wave-1 WARNING "No top level signals found. Simulator will start without a wa
# }
# }
# run 1000ns
Note: Simulation passed!
Time: 928 ns Iteration: 0 Process: /vending_machine_subsystem_tb/tb File: C:/Users/jonma/OneDrive
INFO: [USF-XSim-96] XSim completed. Design snapshot 'vending_machine_subsystem_tb_behav' loaded.

\[ \text{INFO:} [USF-XSim-97] XSim simulation ran for 1000ns} \]
```

This lab implements a vending machine. 4 switches determine which soda to buy, the 7 seg display holds the soda price to the left and the deposit amount to the right, 4 buttons are responsible for pushing each coin to the deposit amount, and the center switch attempts to purchase the soda. LEDs are used to verify status.

## **Area Implementation**



## **Timing Implementation**



## **Video Explanation**

https://youtu.be/7ZNWyTyaLls