

## Chapter 2 Coin Changer

Implement a program to control a coin changer. A coin changer is built to return change plus dispense a \$.35 candy bar. No more than three coins are to ever be used (There is no need to count the number of coins entered). Coins to be used are dimes and quarters. Write a program to accept or reject the sale based on the coins rendered. Coins rendered are checked by inputs *on* using push buttons or selector switches when the Request Candy Bar button is pushed.

Assume dime 2 is not allowed until dime 1 is *on*. Assume dime 3 is not allowed until dime 2 is *on*. That is, dimes enter by filling the slot for dime 1, then dime 2 and finally dime 3.

The same sequence is used for quarters.

Inputs are as follows:

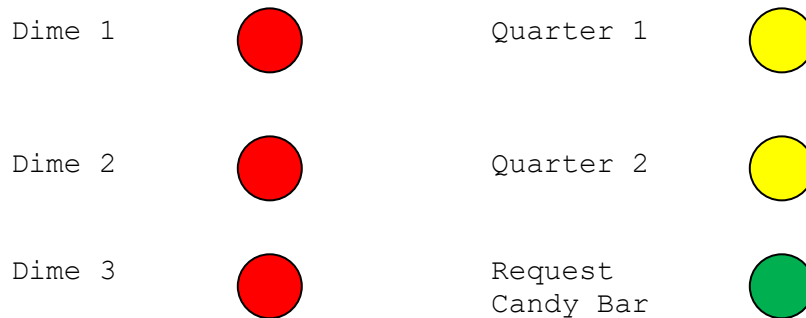
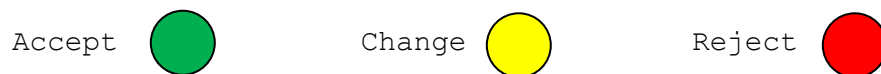


Fig. 5-45 Layout of I/O for Lab

Outputs are as follows:



Accept turns on with the Request Candy Bar input and enough money entered.

Change turns on with the Request Candy Bar input and an excess of money.

Reject turns on with the Request Candy Bar input when no money or not enough money is entered.

Option 1: Change the price to \$.45 for the candy bar.

Option 2: Change the price to \$.55 for the candy bar. Here 4 coins may be used. (including 1 nickel)

Definition of Inputs:

| Sensor | Function/State | Signal Assignment |
|--------|----------------|-------------------|
|        |                |                   |
|        |                |                   |
|        |                |                   |
|        |                |                   |
|        |                |                   |

Definition of Outputs:

| Actuator | Function/State | Signal Assignment |
|----------|----------------|-------------------|
|          |                |                   |
|          |                |                   |
|          |                |                   |
|          |                |                   |



This work is licensed under a Creative Commons Attribution 4.0 International License.