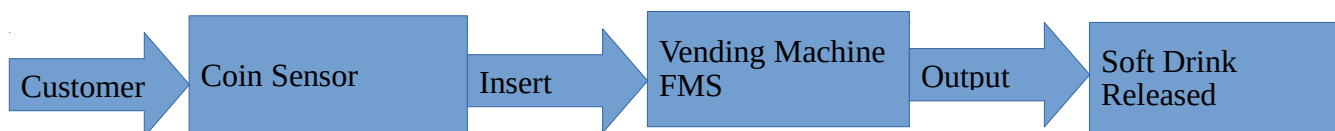**General concept**

Vending machine accepts quarters(Q) = 25c and nickels(N) = 5c from the customer. When a sufficent amount(35c) of the soft drink is entered by the cusmotor the machine dispenses the soft drink of choice.

Specicifications

- A slot that accepts nickels(5c) and quarters(25c)
- The machine will not return change
- The machine will wait for the money for a specific time
- After the soft drink is dispensed, all coins that were inserted will be dropped into a money box in the machine
- The machine will finally set to start and wait for the next customer

Understanding the Problem

The FMS should behave accoding the following specifications:

The FMS will begin with the start state which will initialize each time when the process is completed with the customer. The process is completed when the time has expire or when the soft drink is dispensed.

- A customer needs to insert a sufficient amount of money before they can select a soft drink to purchase.
- The Machine will wait for 40 seconds as the customer inserts the money in the slots before cancelling the transaction. After the machine will return to its initial state and wait for a customer.
- The slots will accept a single coin at a time.

State transaction:

The execution of the transaction may change depending on the coin type. If the price of the soft drink is less than or equal to the price, then the price decreases by price. The only requirement is that the value of the money is greater or equal to the price.