`timescale 1ns/100ps

module vendtest();

wire Dispense;

wire [2:0] State;

reg Nickel,Dime,Reset,CLK;

//bring in vending machine

vend2 inst(Reset,CLK,Dime,Nickel,Dispense,State);

// clk

initial CLK = 1'b0;

always #5 CLK = !CLK;

//control

initial begin

Reset = 1'b1;

Nickel = 1'b0;

Dime = 1'b0;

//three nickels

#10 Nickel = 1'b1;

#10 Nickel = 1'b0;

#10 Nickel = 1'b1;

#10 Nickel = 1'b0;

#10 Nickel = 1'b1;

#10 Nickel = 1'b0;

// three dimes

#20 Dime = 1'b1;

#10 Dime = 1'b0;

#10 Dime = 1'b1;

#10 Dime = 1'b0;

#10 Dime = 1'b1;

#10 Dime = 1'b0;

//reset check

#10 Dime = 1'b1;

#10 Dime = 1'b0;

#10 Reset = 1'b0;

#20 Reset = 1'b1;

// dime nickel

#10 Dime = 1'b1;

#10 Dime = 1'b0;

#10 Nickel = 1'b1;

#10 Nickel = 1'b0;

//nickel Dime

#10 Nickel = 1'b1;

#10 Nickel = 1'b0;

#10 Dime = 1'b1;

#10 Dime = 1'b0;

end

//monitor

initial

$monitor ($time, " CLK = ", CLK, " Dispense = ", Dispense, " State = ", State," Nickel = ", Nickel, " Dime = ",Dime, " reset = ", Reset);

initial

#400 $finish;

endmodule