

1. Simulate an embedded system for complete Home automation system to provide local and remote management capabilities for home appliances like Refrigerators(auto-ordering), Microwave oven, Television and HVAC (heating, ventilation, and air-conditioning) and display the result on serial window.
2. Simulate smart anti-missile air defense system and display the same on serial window.
Note: Position sensor, Motion sensor, Thermal sensor and relevant actuators must be used; Misguided enemy missile should be taken care appropriately
3. Simulate an intelligent automotive navigational system for next generation car and use serial window as Dashboard.
Note: Auto-lane changing, Auto-gear based on road condition, Auto-signal Monitor, Auto-wiper facilities should be incorporated
4. Simulate an e-Toll Plaza and display the same on serial window.

Sl.No.	Vehicles	Toll in Rs
1	Heavy	200
2	Medium	150
3	Bus	100
4	Car	50

Provide Collection report on serial window.

5. Simulate real time smart traffic control system with the following specifications:-
 - a). Four-way junction and each direction has got 4 lanes.
Provide display on serial window
6. Simulate an embedded system to perform the following tasks:
 - a). The shopping mall has 15 shops and count the number of visitors in each shop in the mall. b). Display the result on serial window.
7. Simulate an embedded system to control a boiler in a chemical processing plant with the following specifications:
 - a). one temperature sensor, one water inlet, one water outlet, one steam outlet and one steam overflow outlet
Provide comprehensive display using serial window.

8. Simulate a fire alarm system as part of smart building management system with the following specifications:
- a). One gas leak detector is used in kitchen and one smoke detector is used in kitchen, living room and guest room.
 - b). Alarm has to be generated and displayed on serial port UART1.

9. Simulate a simple vending machine with the following specifications:-

Sl.No.	Products	Price in Rs
1	Energy Drink	20
2	Herbal Drink	25
3	Diet Drink	20

Provide inventory and balance report on serial window.