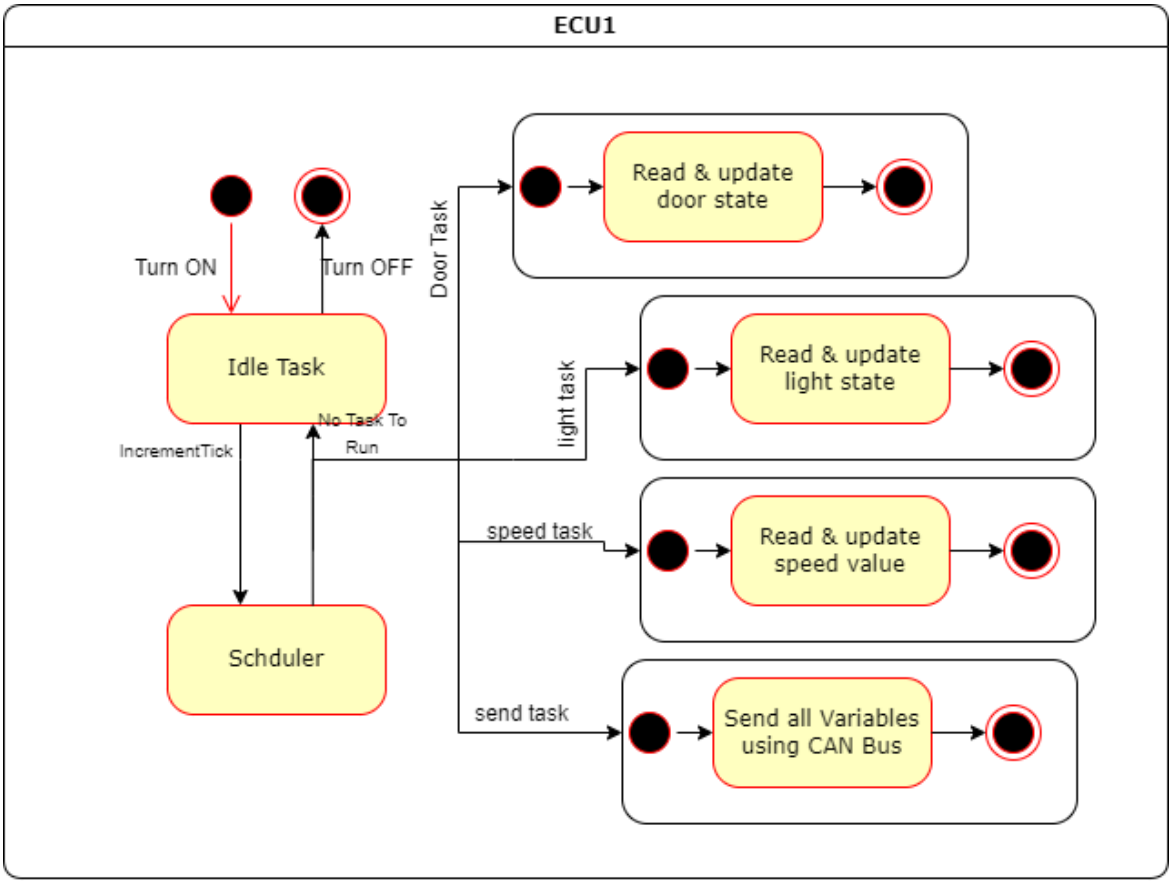
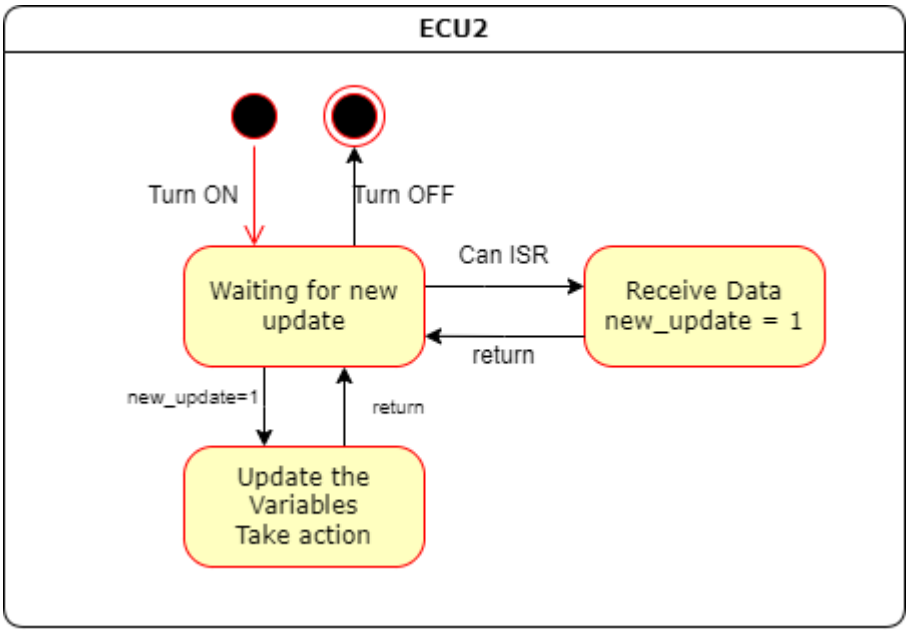
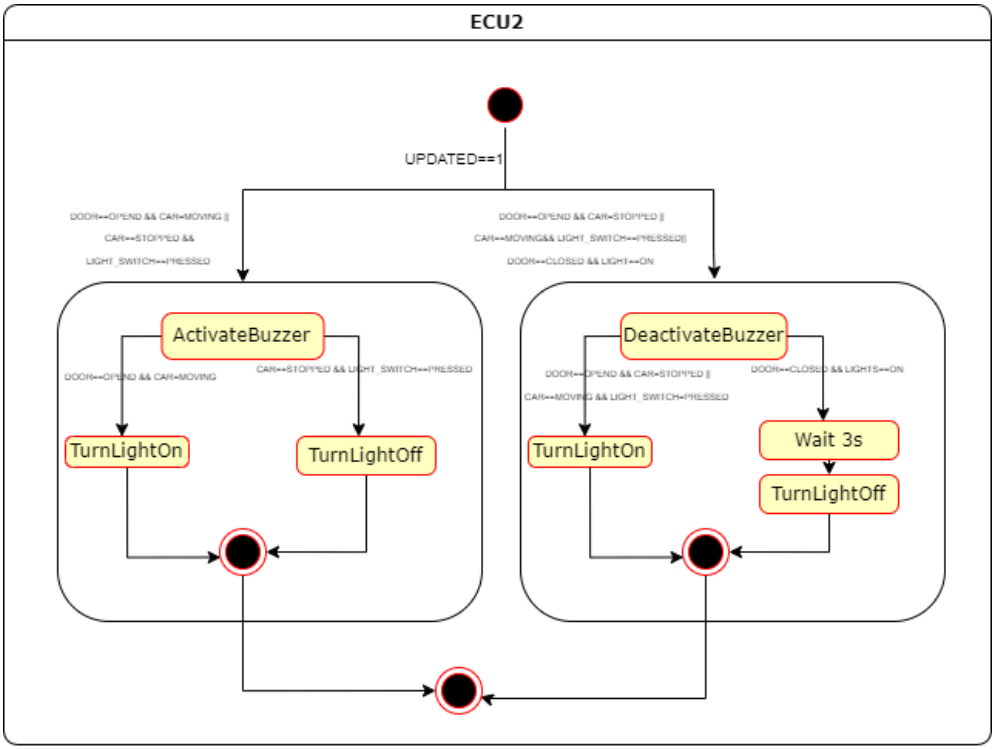
Dynamic Design:

- State Diagram for ECU1

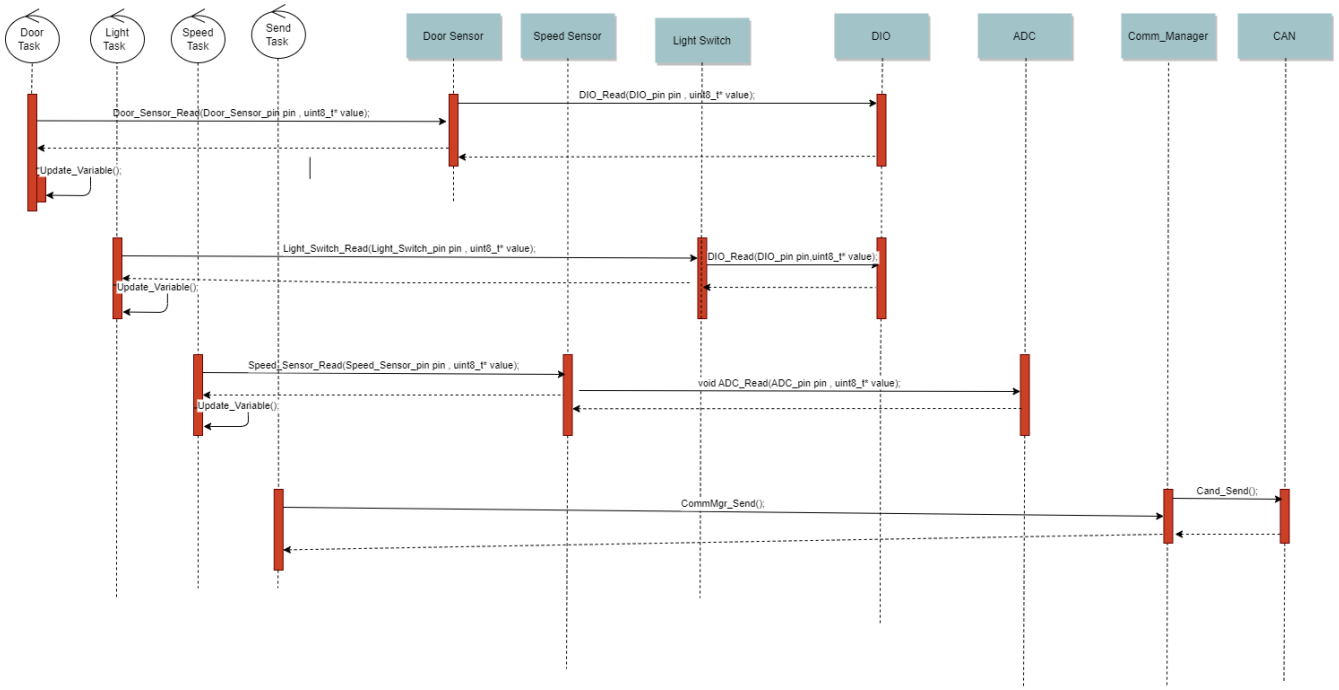


- State Diagram for ECU2

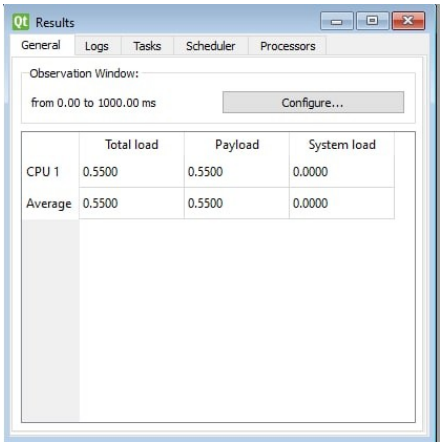




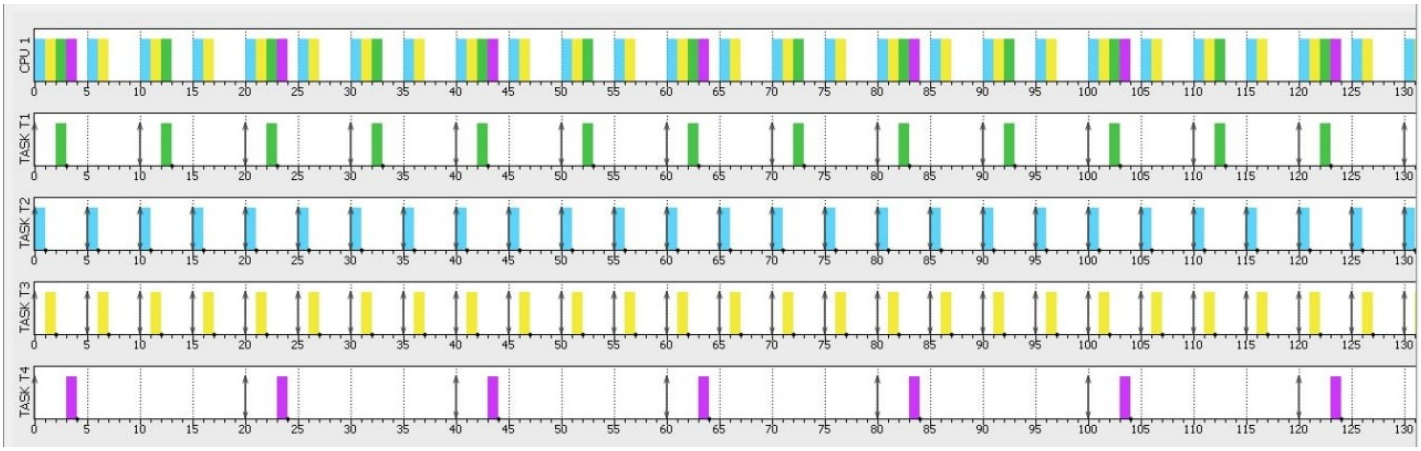
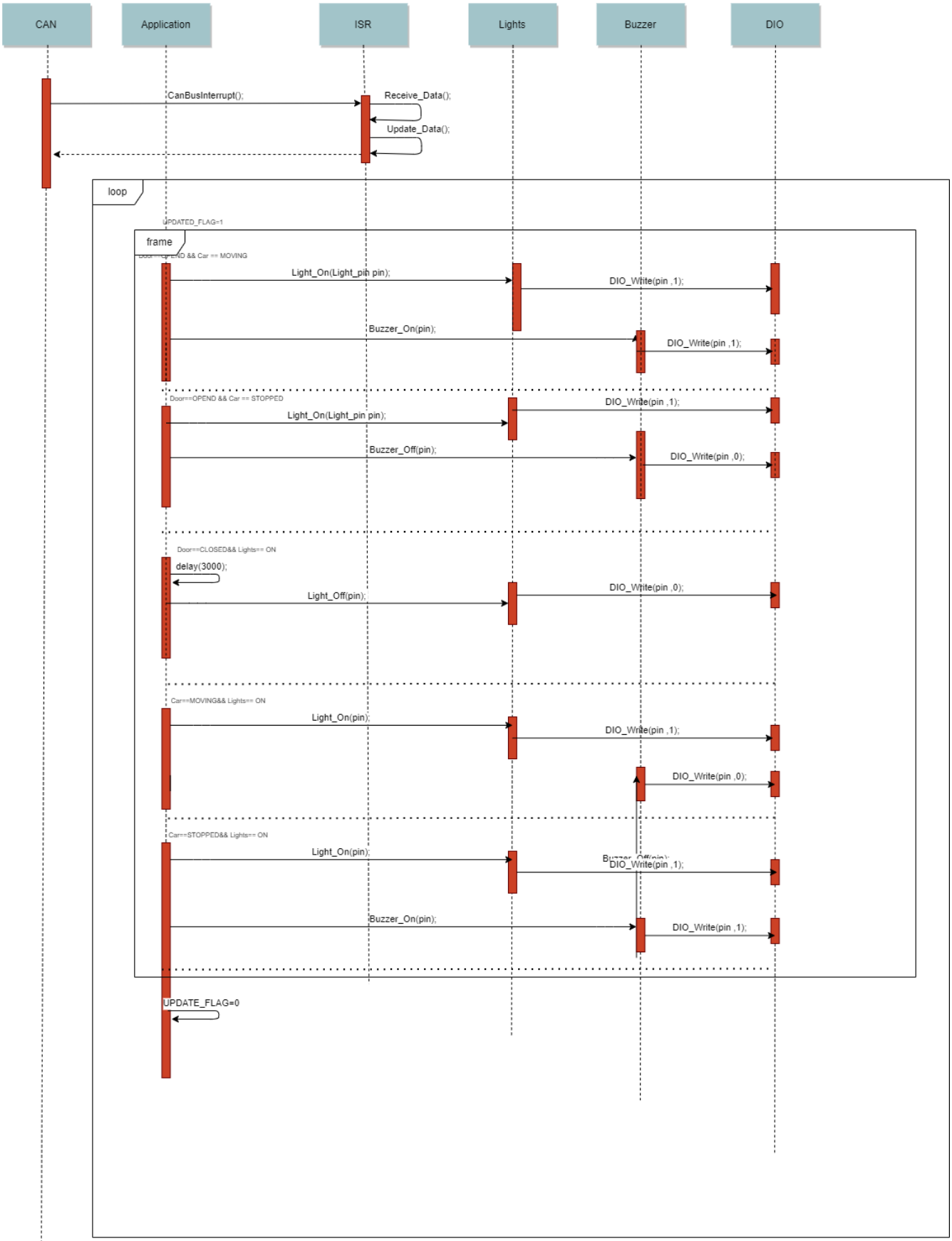
- Sequence Diagram for ECU1:



- CPU Load for ECU1:
    * Assume worst case execution time (WCT) for all tasks is 1 ms
    * Door task runs every 10ms
    * Light switch task runs every 20ms
    * Speed task runs every 5ms
    * Send task runs every 5ms



- Gantt Chart



- Sequence Diagram for ECU2: