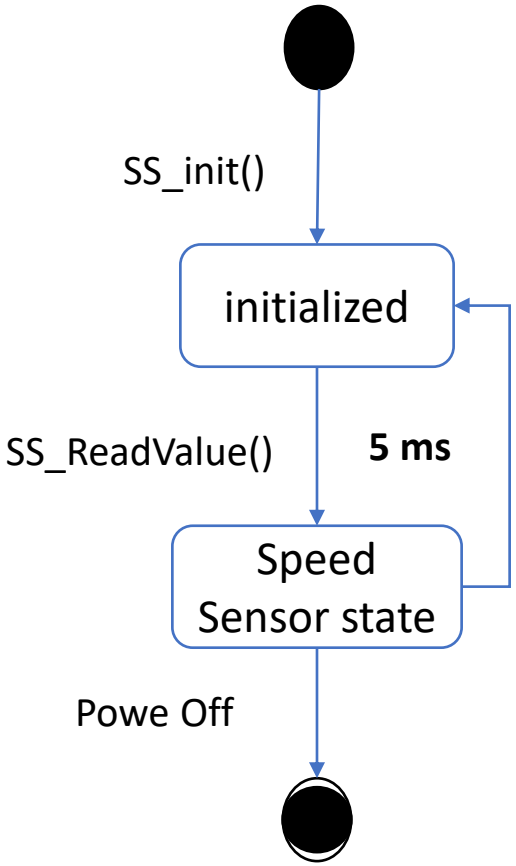
Automotive Door Control System Design

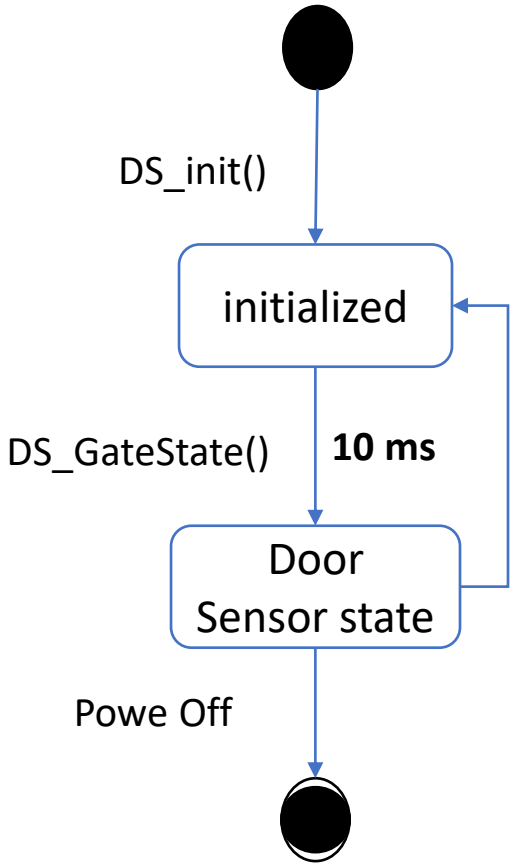
(Dynamic Design)

ECU 1

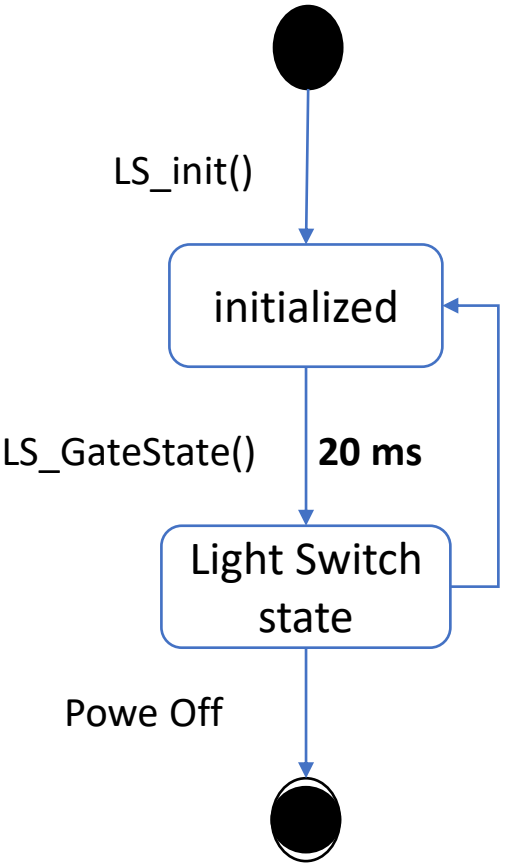
1.State Machine for each component:



Speed Sensor

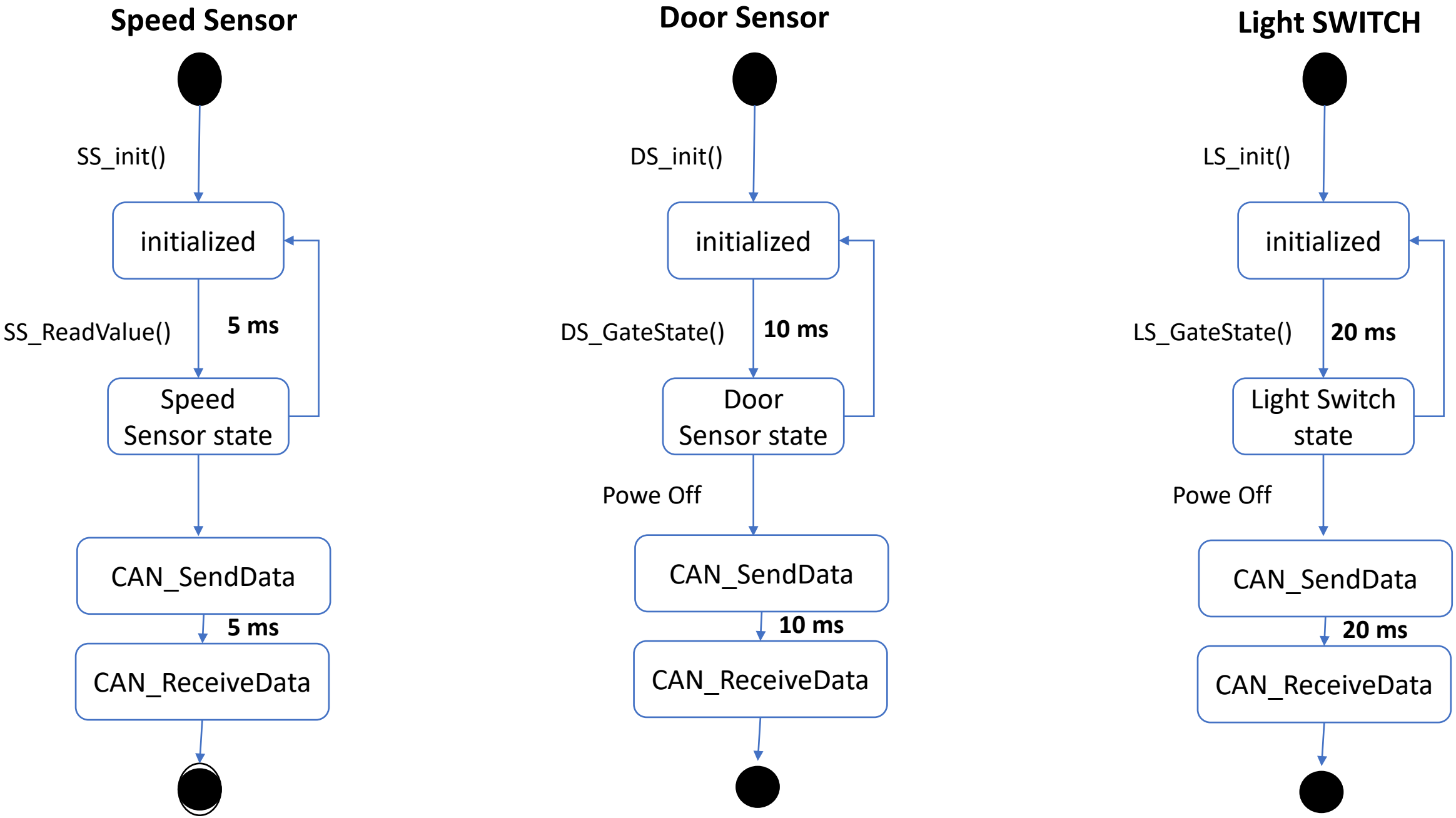


Door Sensor

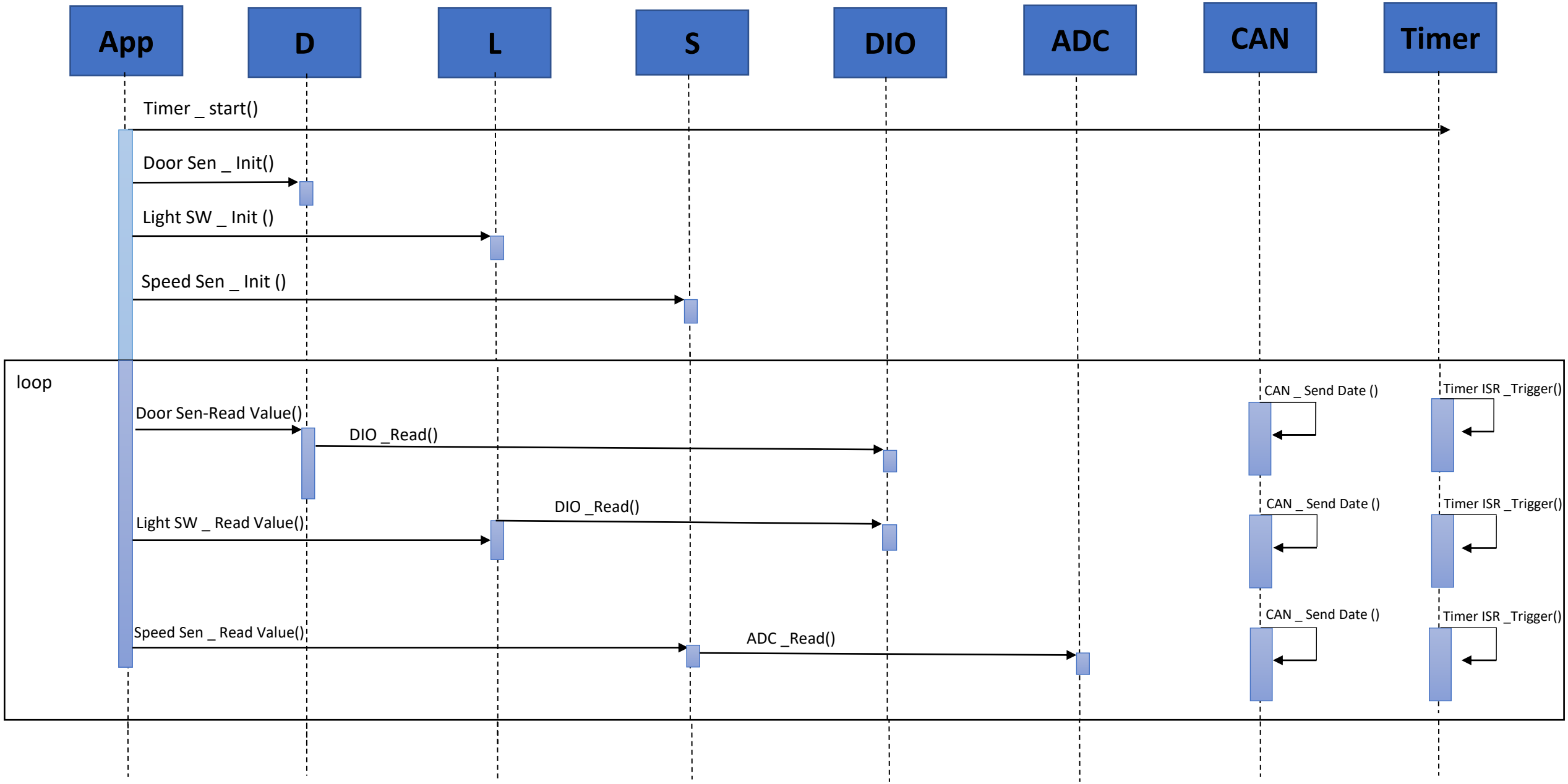


Light SWITCH

2.State Machine for operations:



3.Sequance Diagram for CPU1 :



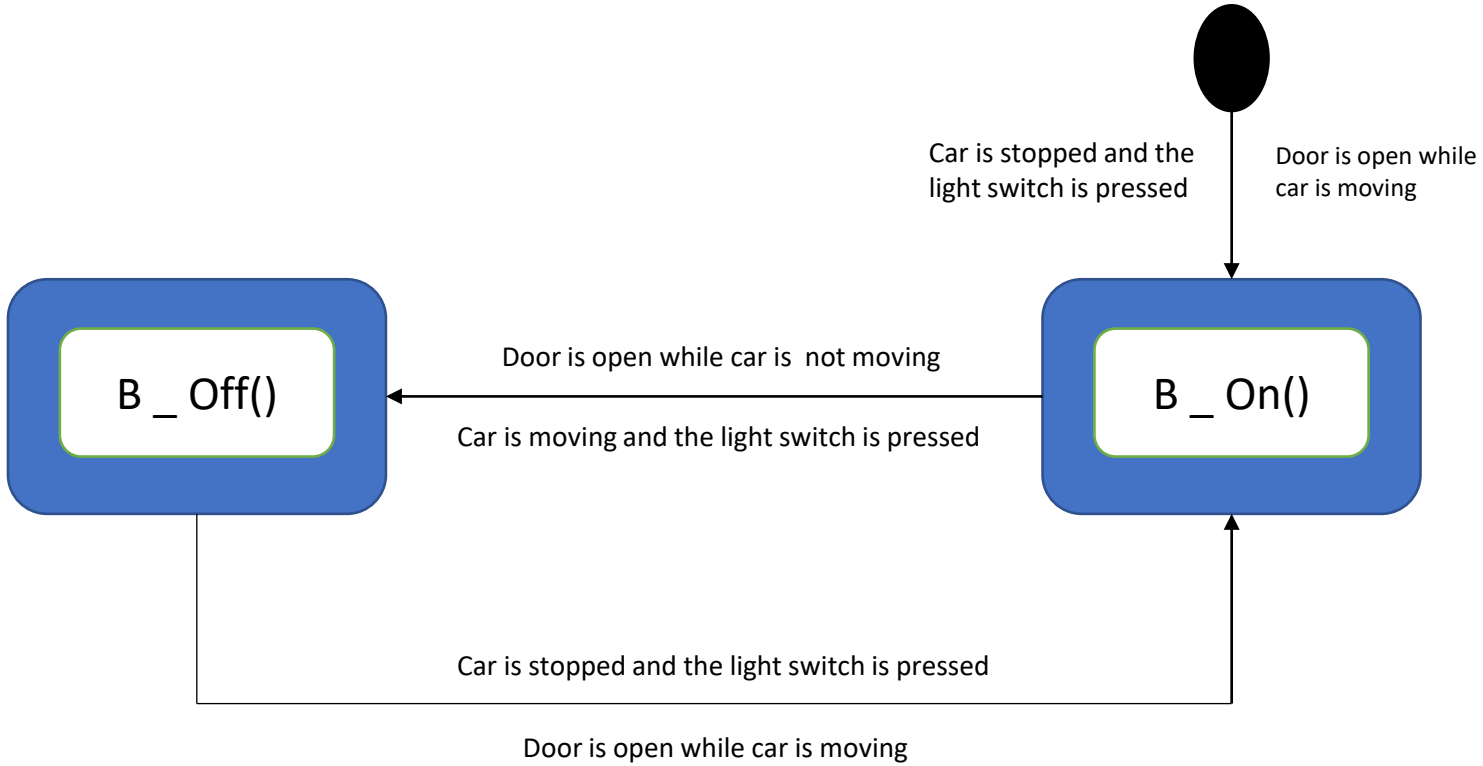
4-CPU Load For CPU 1

CPU Utilization = 100 – IDLE time
= 100 – 65 = 35%

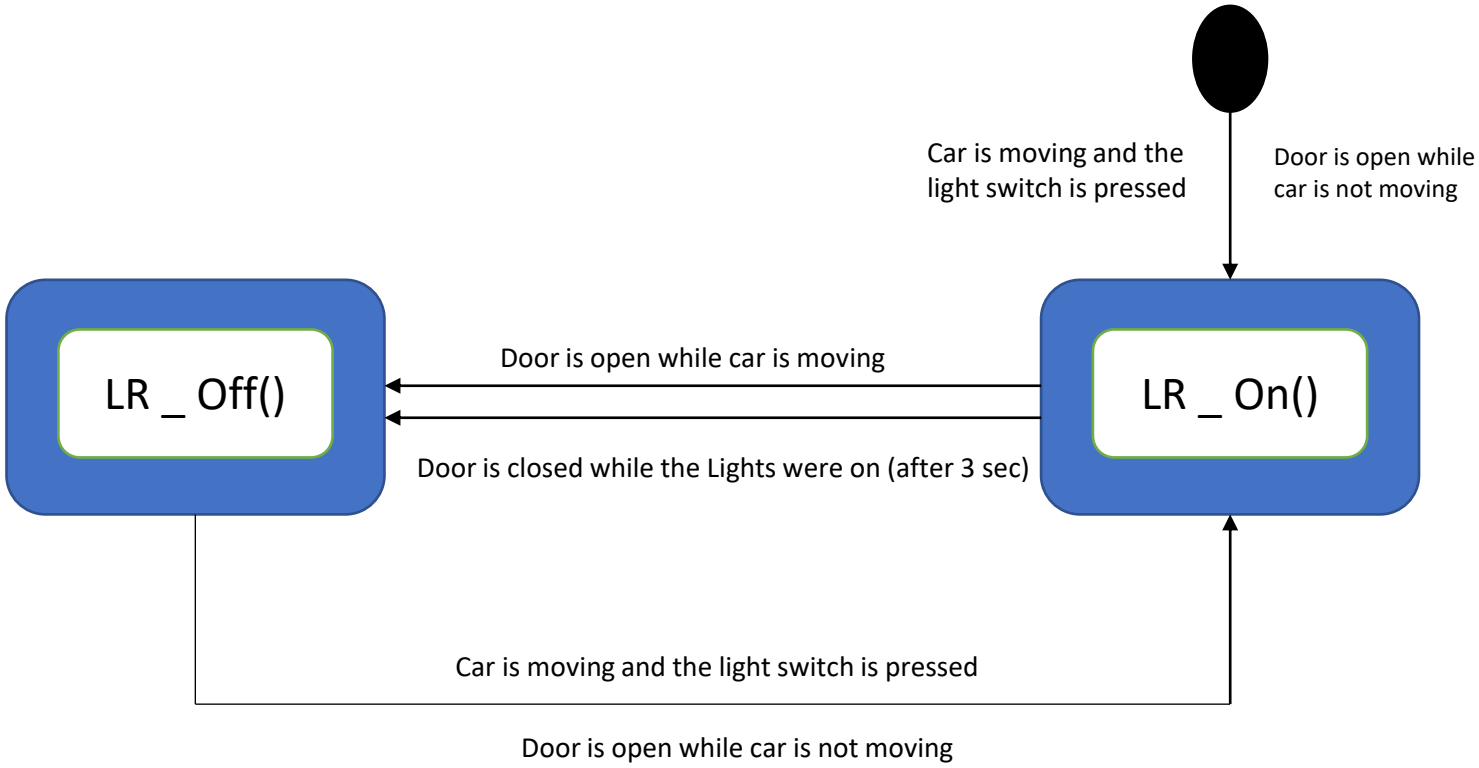
ECU 2

1 - state Machine Diagram

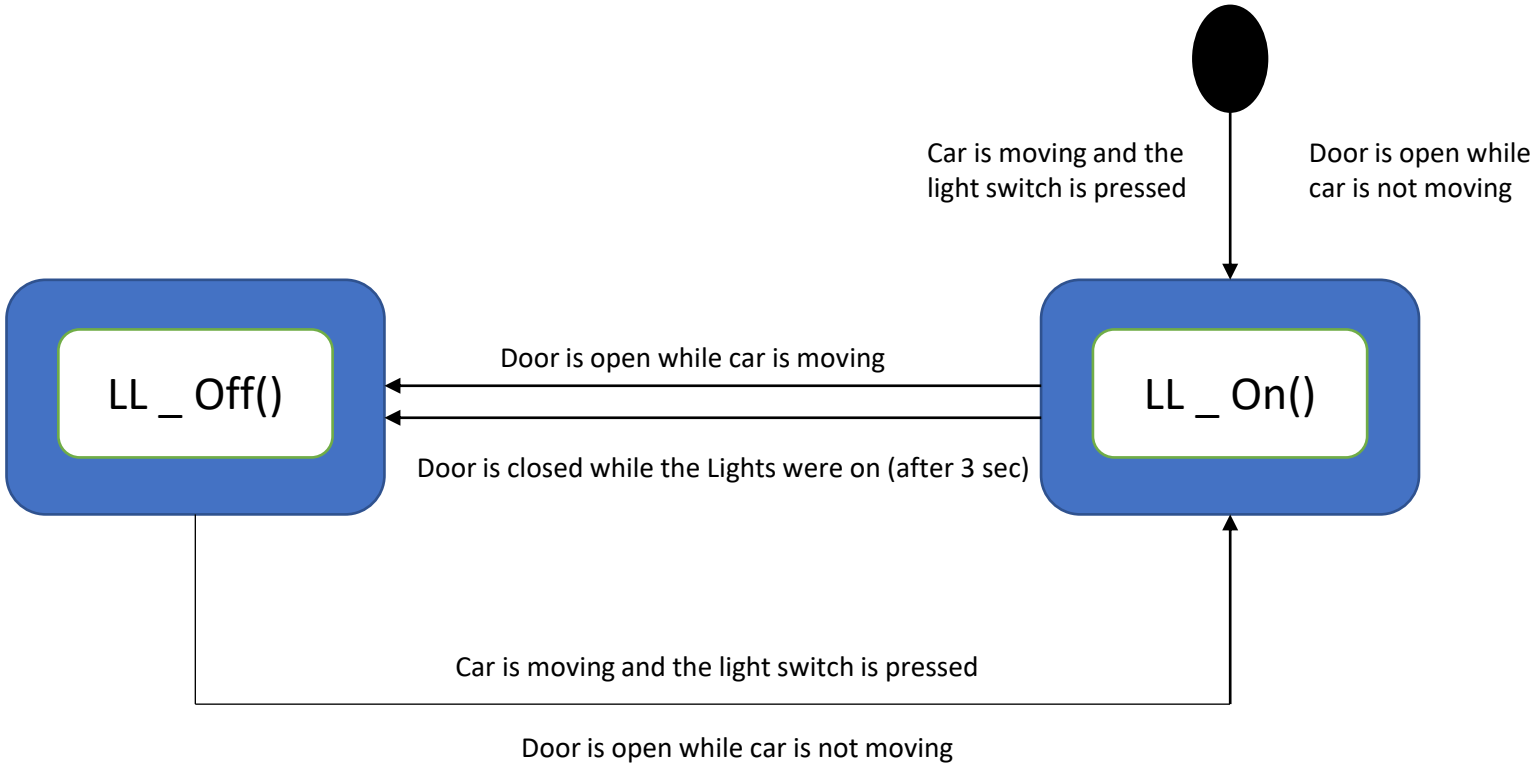
- **Buzzer (B)**



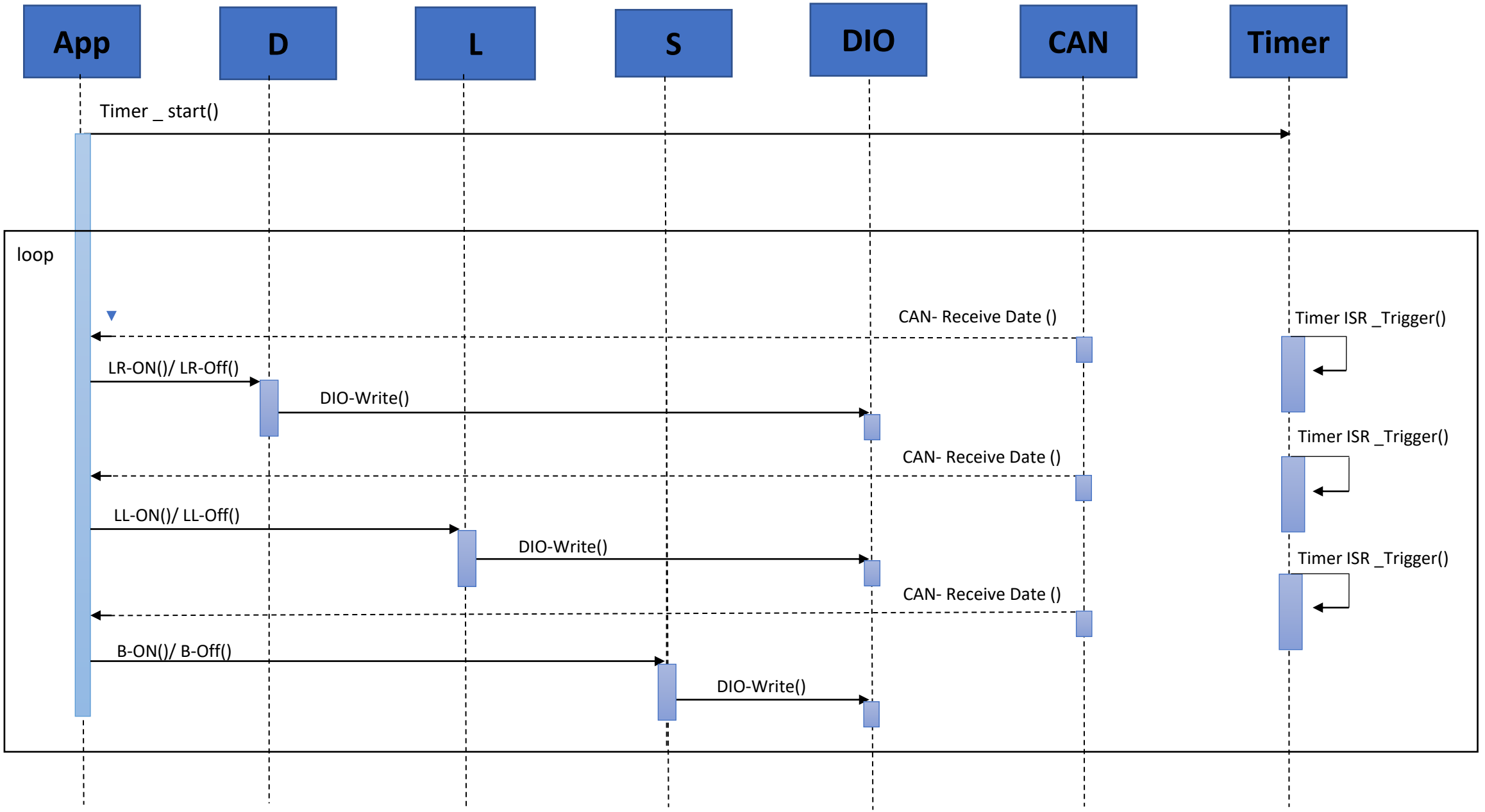
- **Light Right (LR)**



- **Light Right (LL)**



3.Sequance Diagram for CPU2



4-CPU Load For CPU 2

CPU Utilization = 100 – IDLE time
= 100 – 65 = 35%