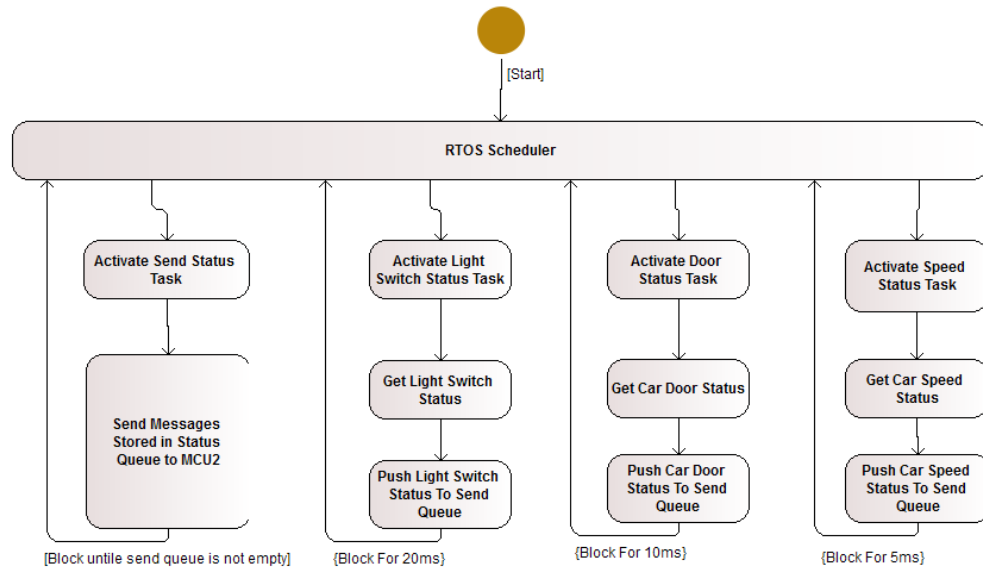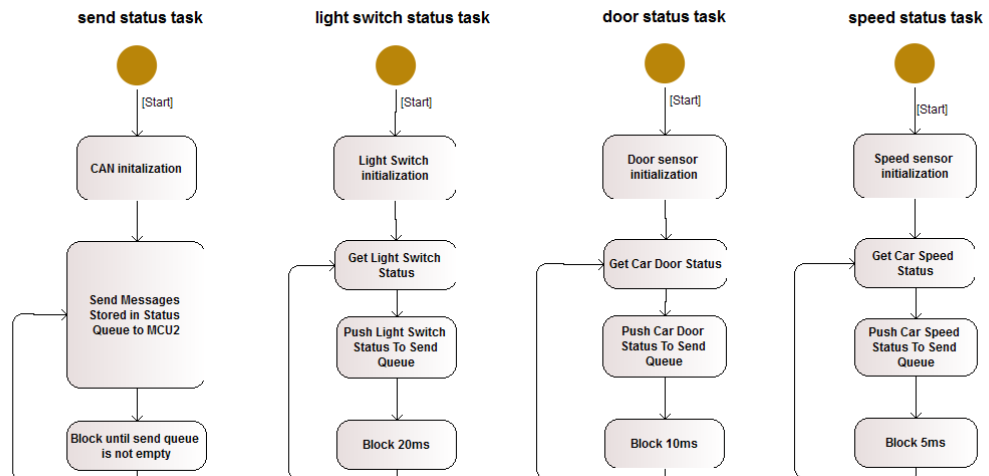# Dynamic design analysis ECU1
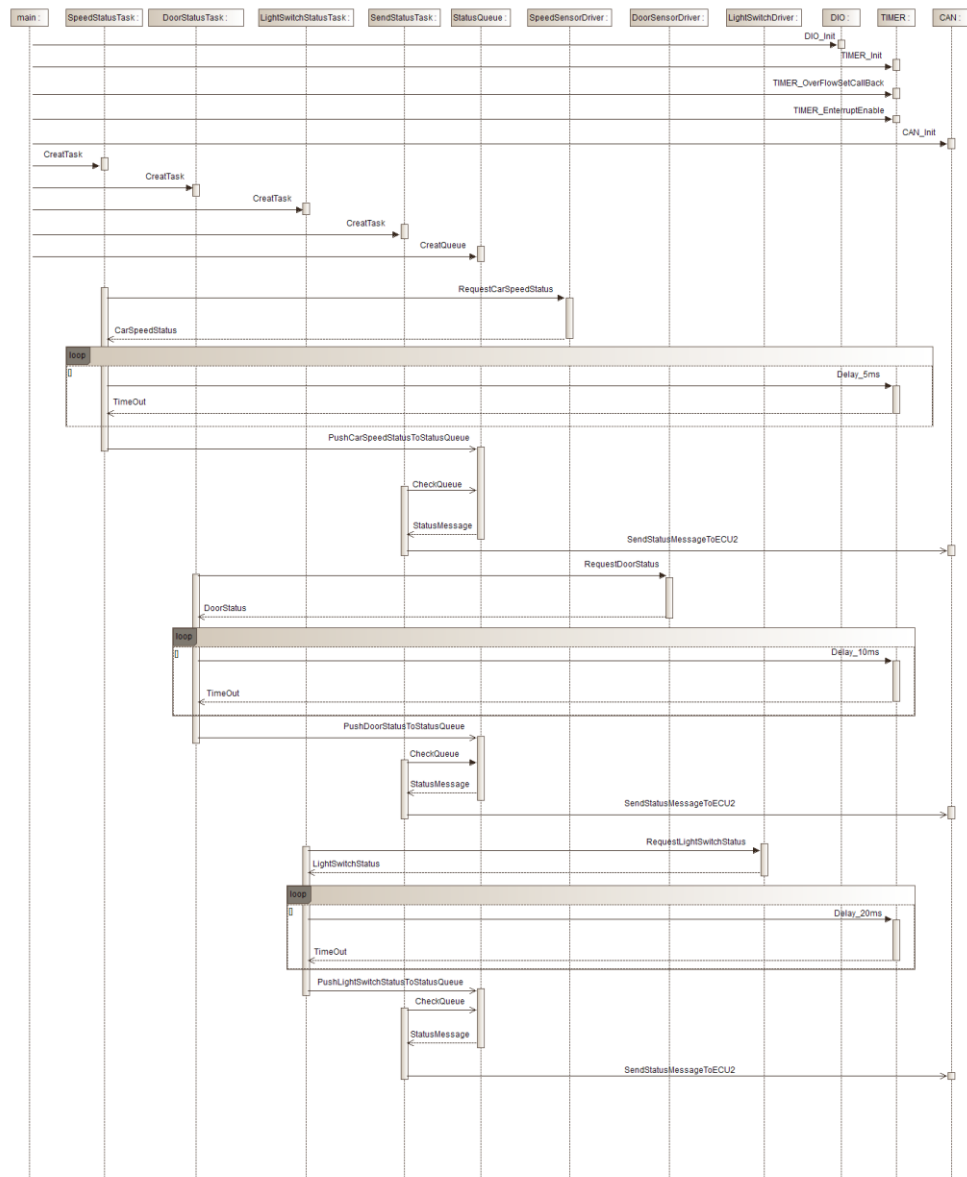
- **State machine diagram for ECU1 components**

- **State machine diagram for ECU1 operations**

Sequence diagram for ECU1

- **CPU load for ECU1**

Tasks of the system

Task Name	Periodicity (ms)	Execution Time (ms)
SpeedStatusTask	5	0.5
DoorStatusTask	10	0.2
LightSwitchStatusTask	20	0.4
SendStatusTask	5	0.9

CPU load

CPU load $= \sum_{i=1}^{n} \frac{Ci}{Pi}$

CPU load $= \frac{0.5}{5} + \frac{0.2}{10} + \frac{0.4}{20} + \frac{0.9}{5}$

CPU load = 0.32