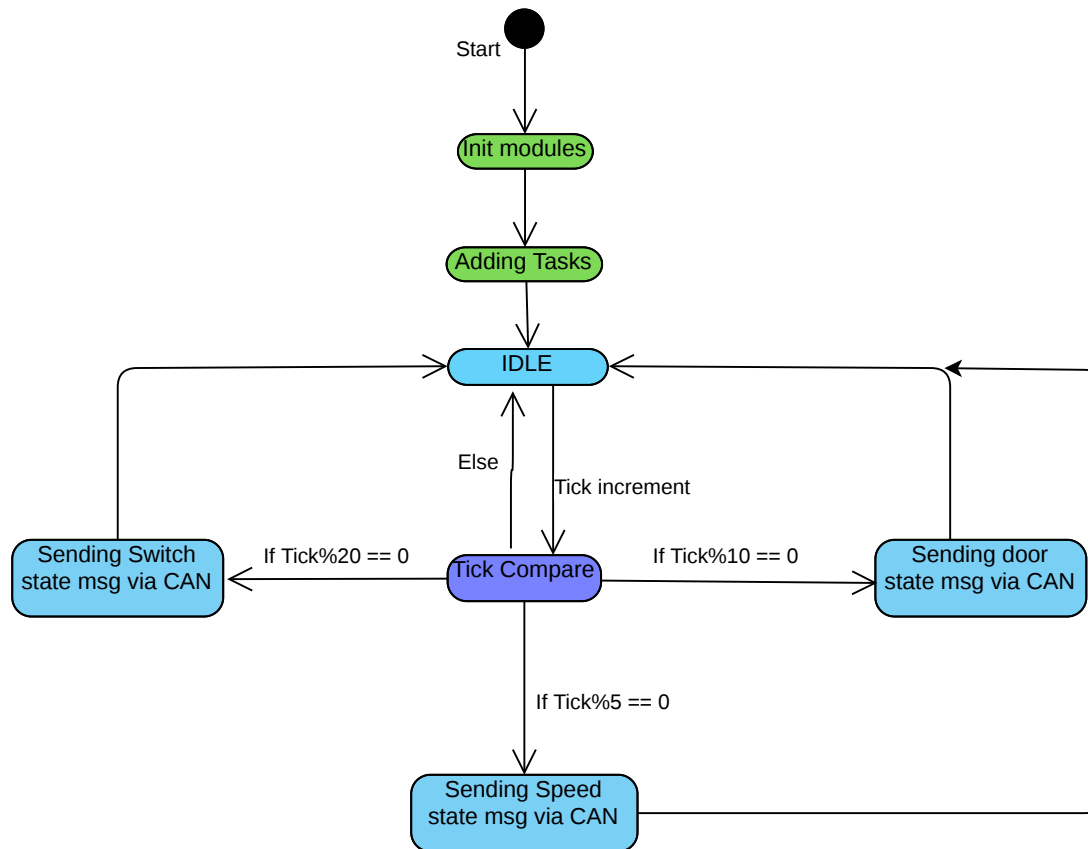
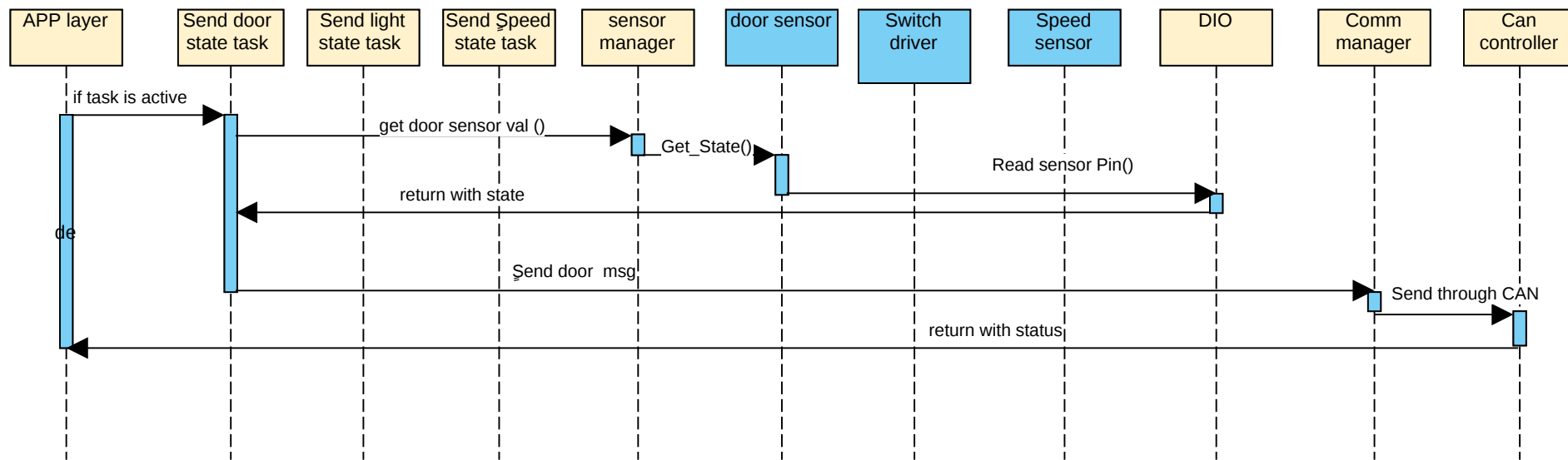
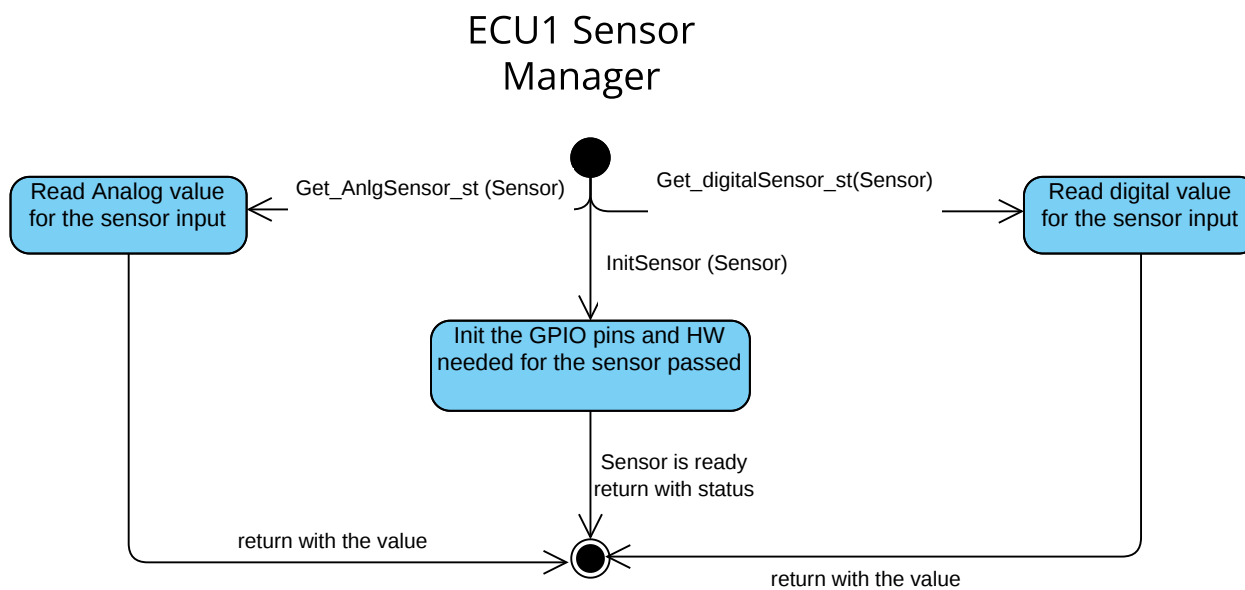


# ECU1 State Machine

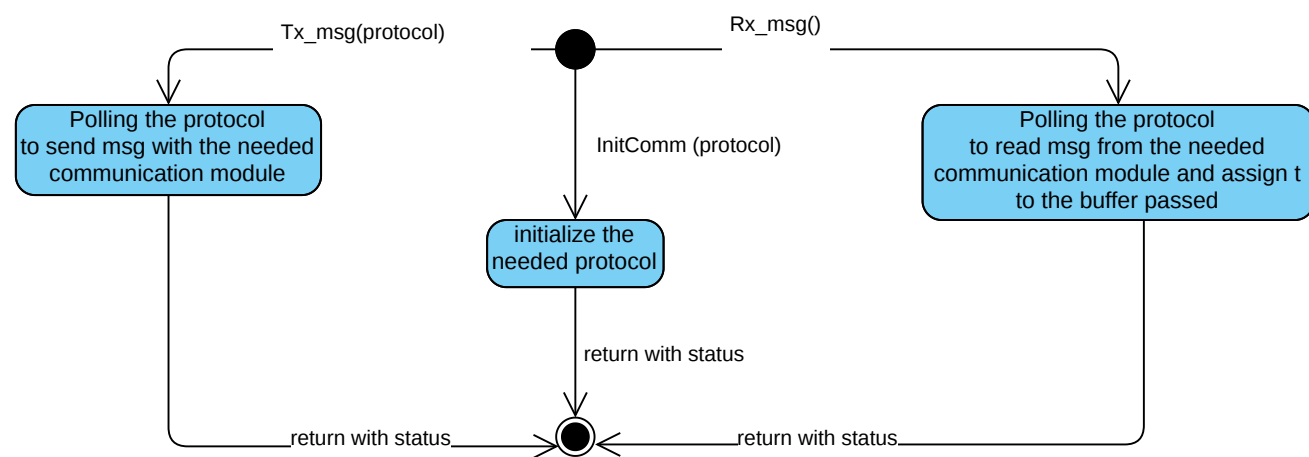




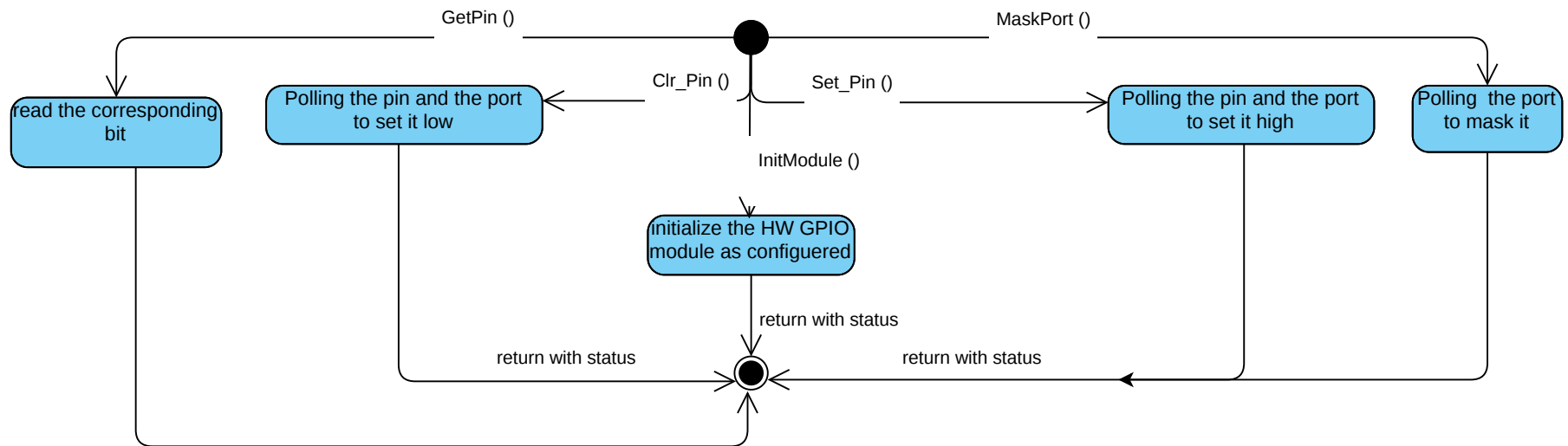
Same sequence for other tasks....



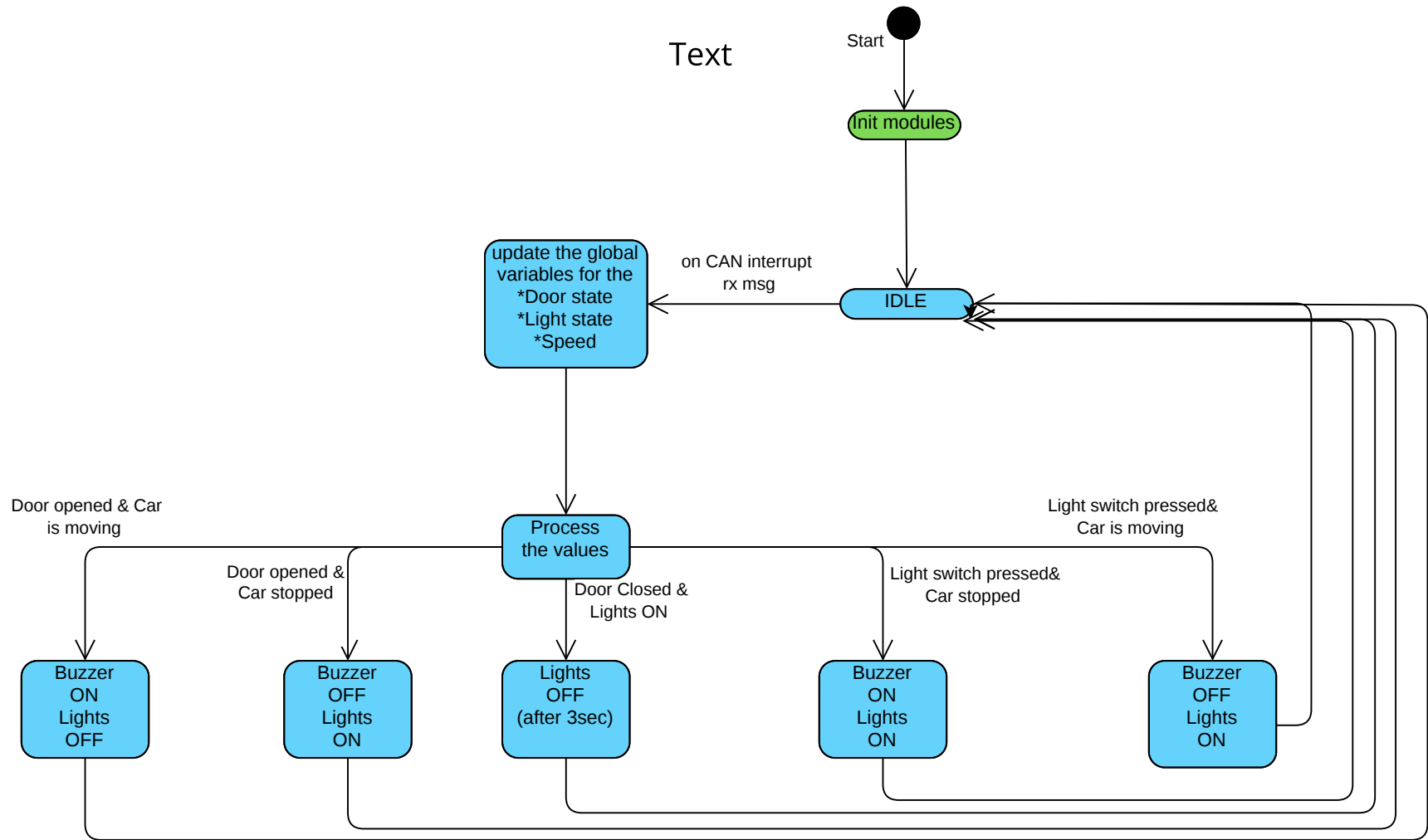
## ECU1 comm manager

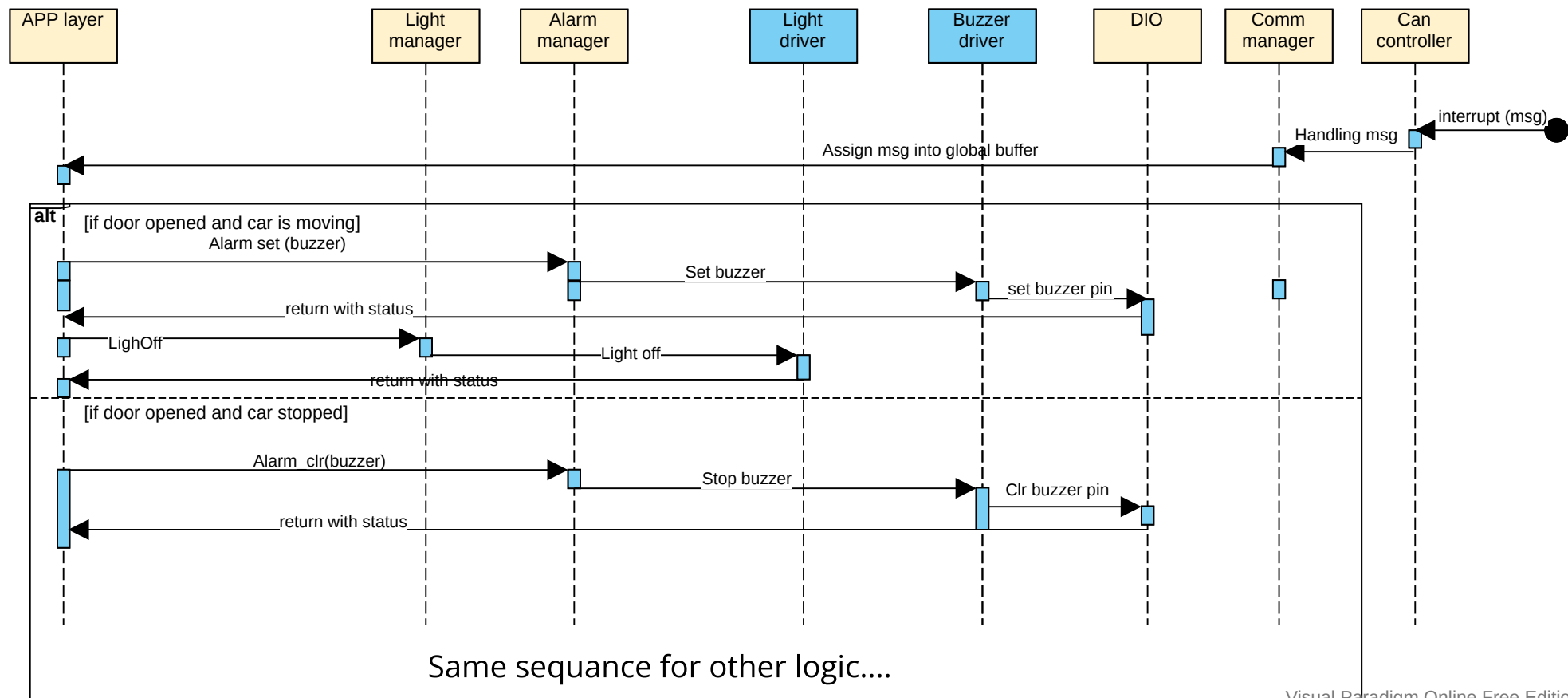


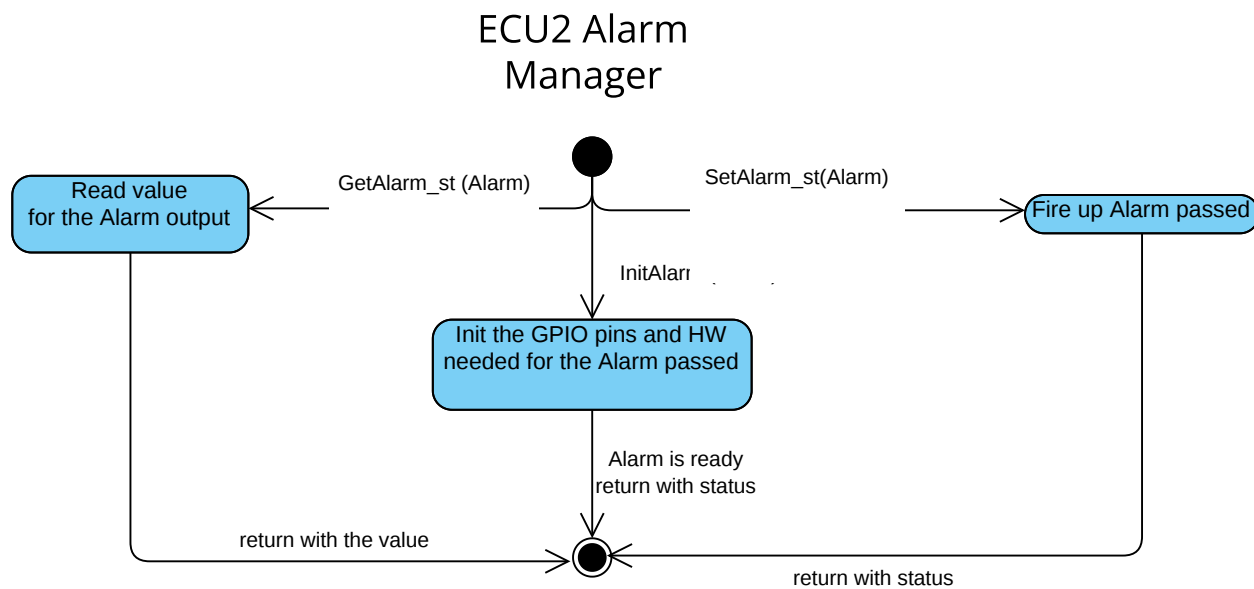
## ECU1 DIO



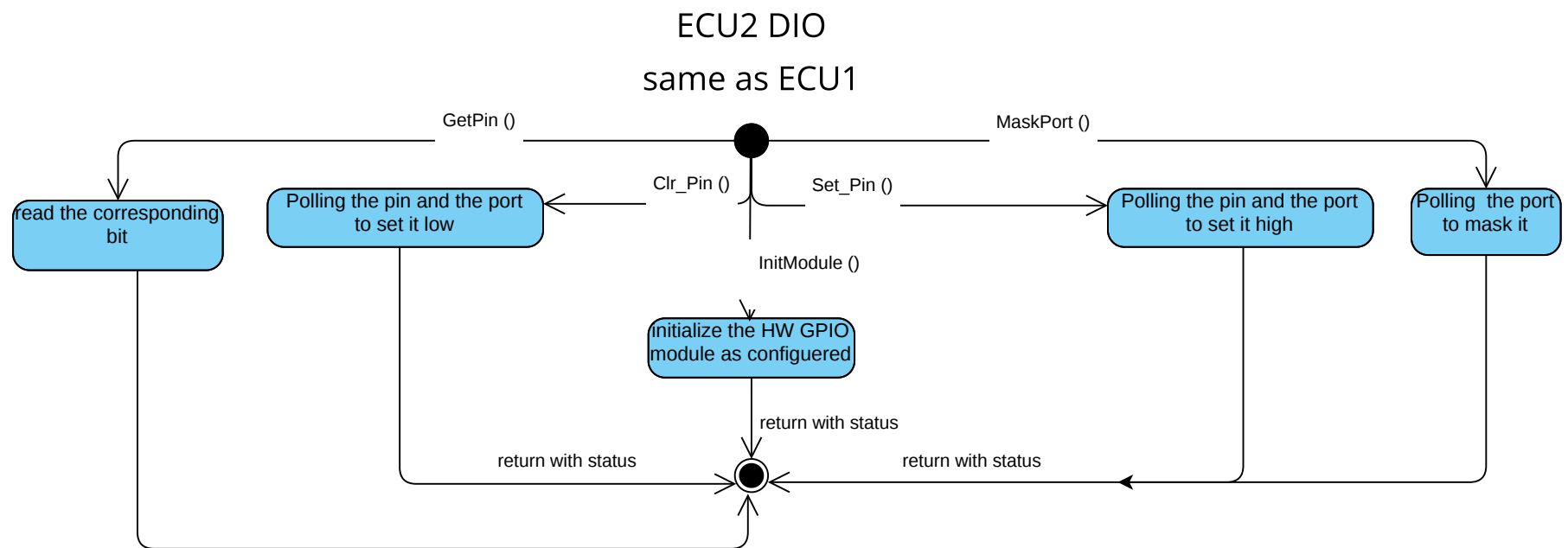
# ECU2 State Machine



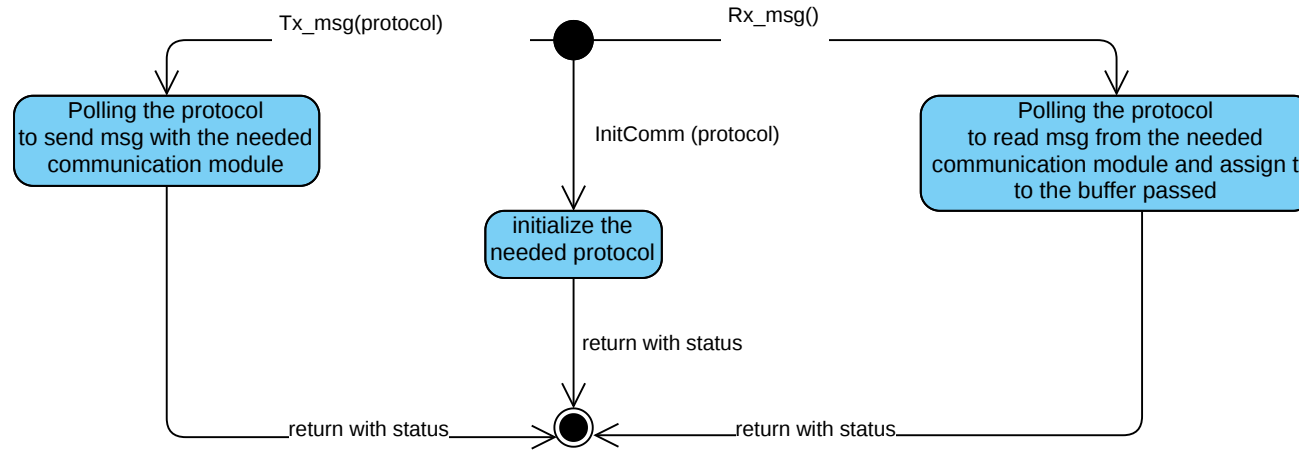








## ECU2 comm manager same as ECU1



For ECU1:

CPU load

Assume sending message task executes in 2 ms

Hyper period 20ms

$$\text{Load} = (4 \times 2 + 2 \times 2 + 1 \times 2) / 20 = 70\%$$

For ECU2:

Almost same receiving time + logic over head

Assume logic over head is 3ms per each 20ms

$$\text{Load} = (14 + 3) / 20 = 85\%$$