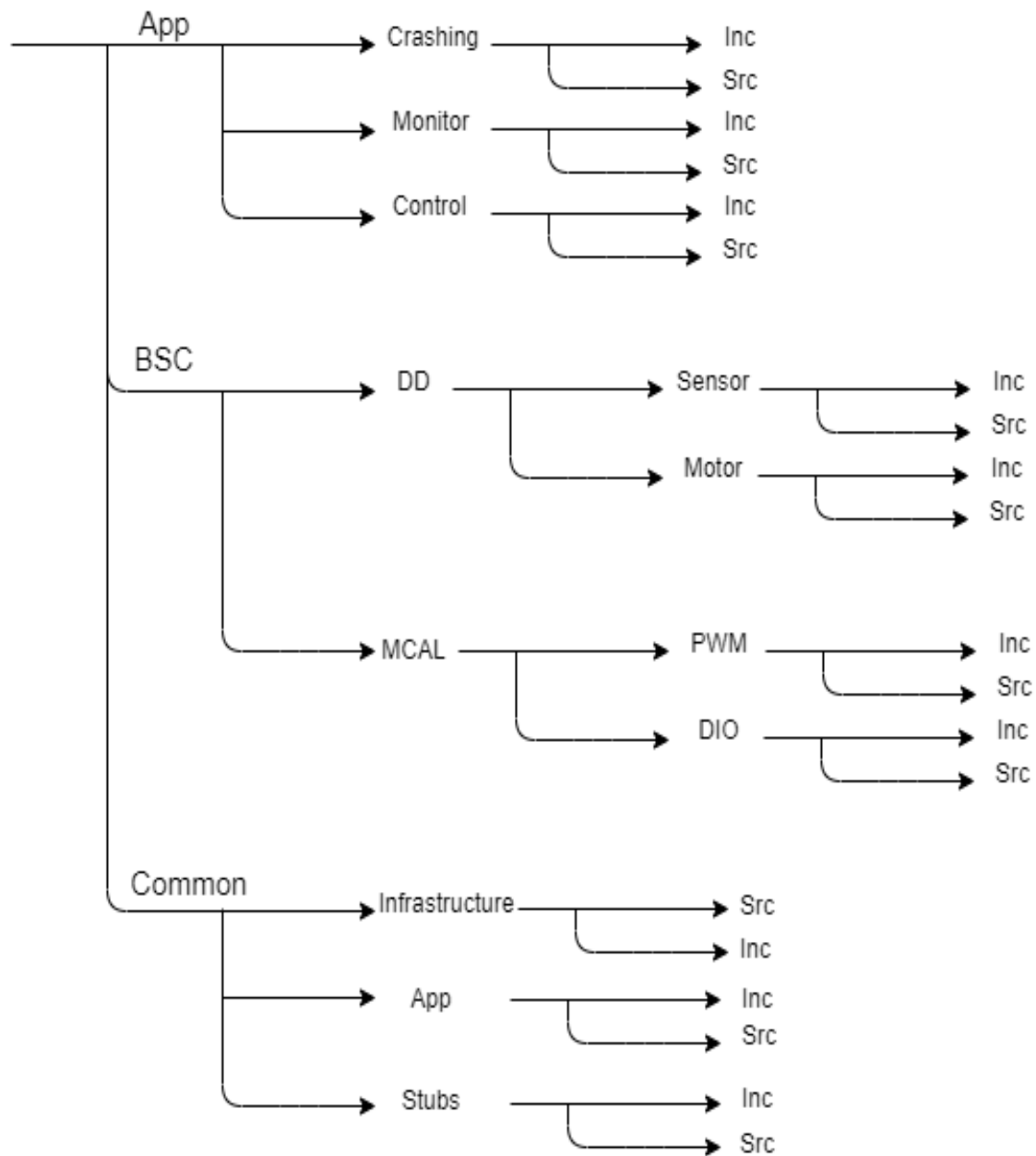# Crashing Avoidance robot

(Design)
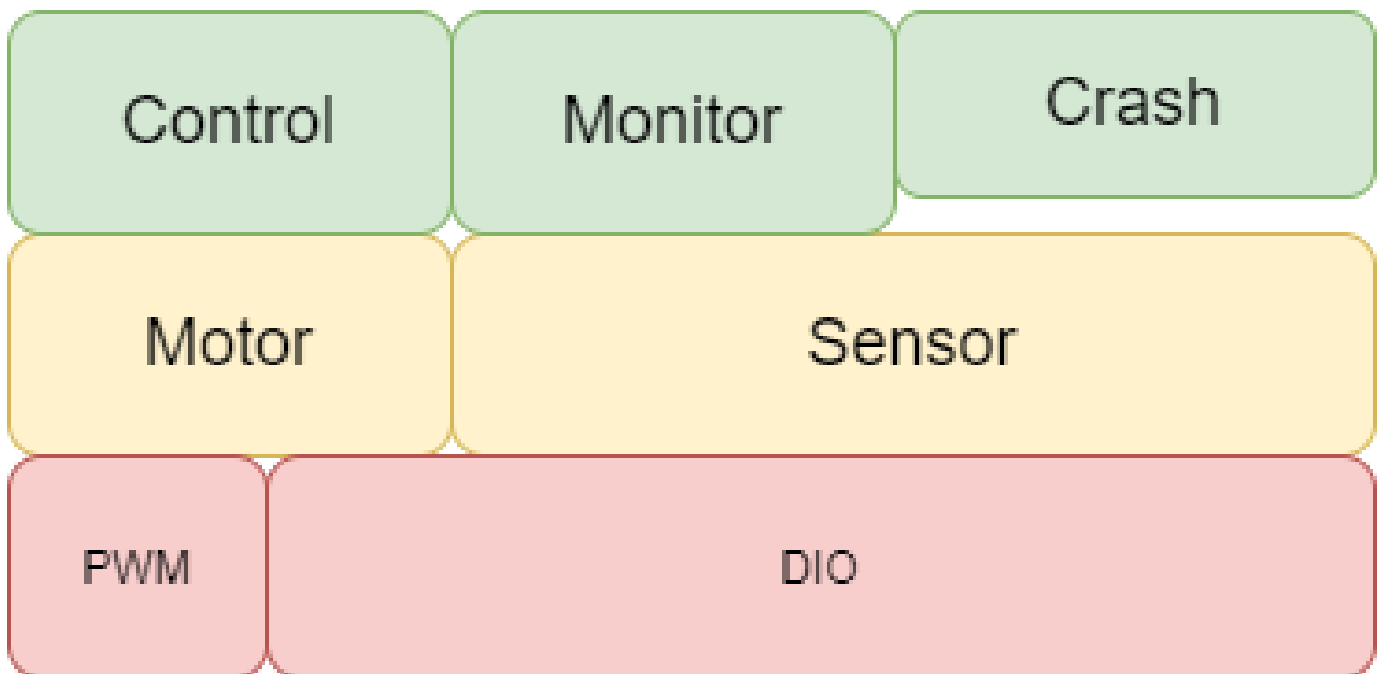
By/ Ahmed Maged

1 – Folder Structure

2 – Static Design
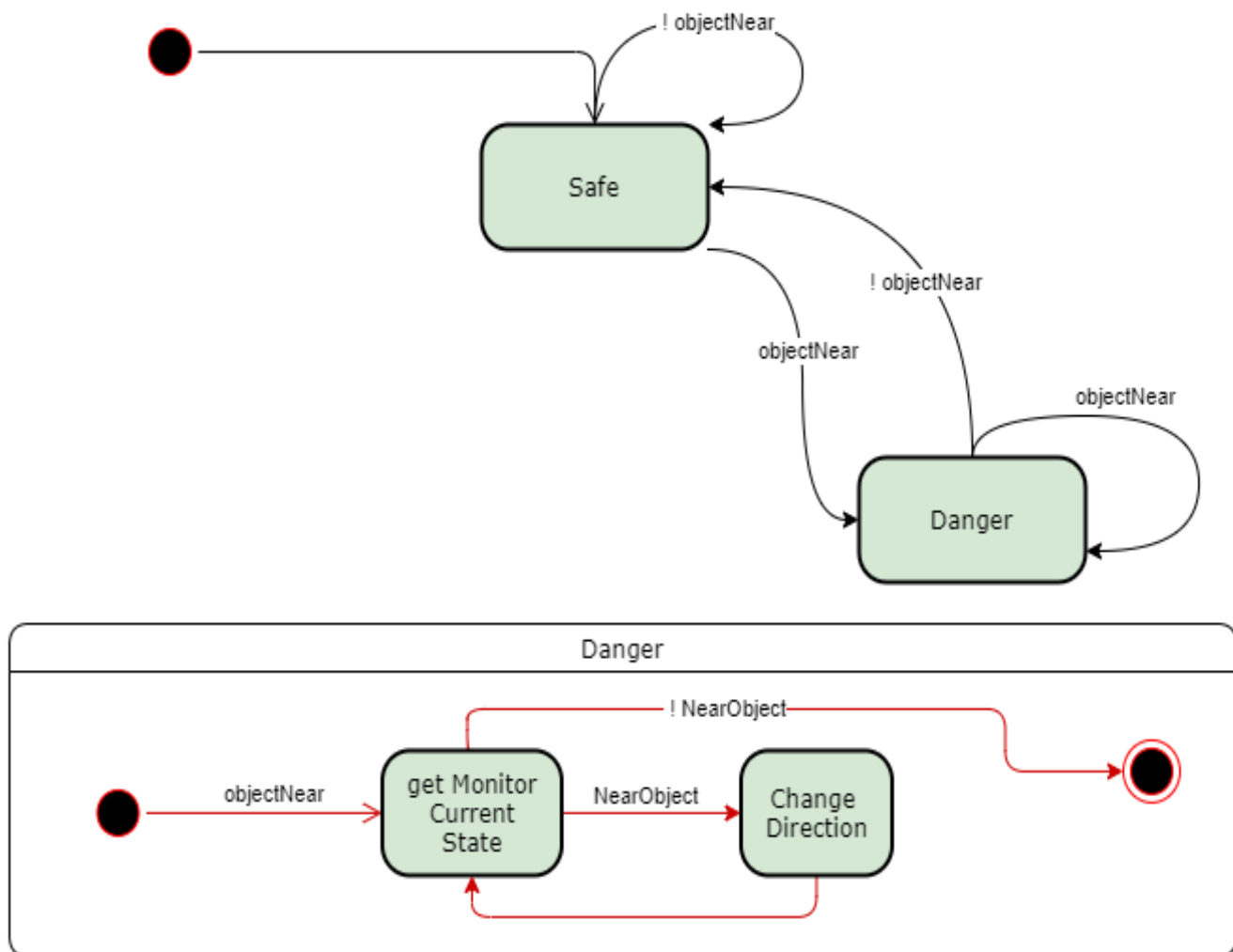
Layered Architecture.

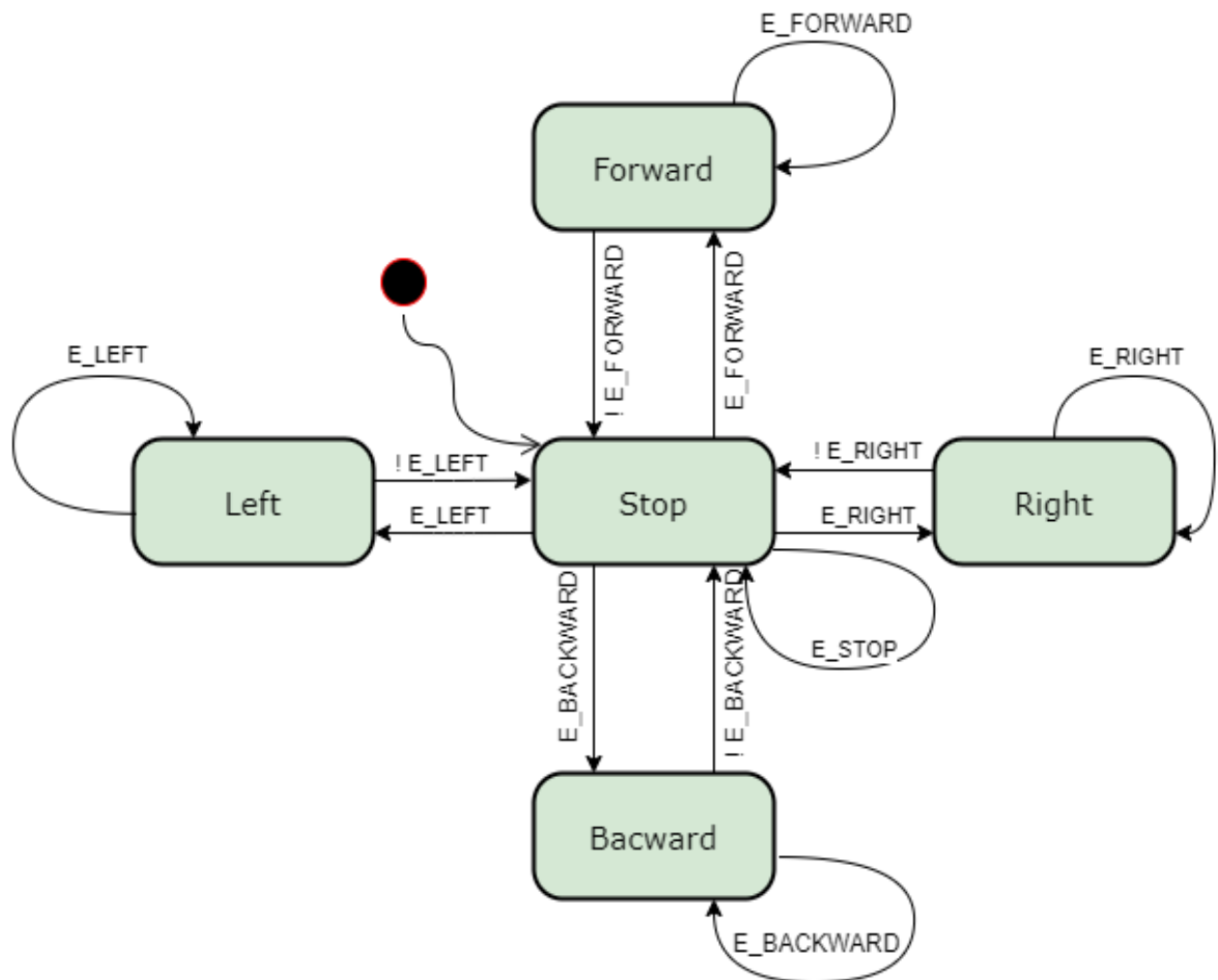| Control	Monitor	Crash
Motor	Sensor	
PWM	DIO	

3 – Dynamic Design

A – Crashing module State machine

B - Control module State machine

C – Monitor Stack State machines

1: Sensor module:

2: Monitor state machine

Monitor

Distance < LOWER_LIMIT

NoObject

Distance > L_L

Distance < L_L

L_L: Lower_Limit
H_L: Higher_Limit

L_L < Distance > H_L

FarObject
exist

Distance > H_L

Distance < H_L

NearObject
exist

Distance > H_L

NoObject | FarObject exist | NearObject exist

TriggerSend

WaitingRespose

Distance

Check with
Parameters

TimeOut
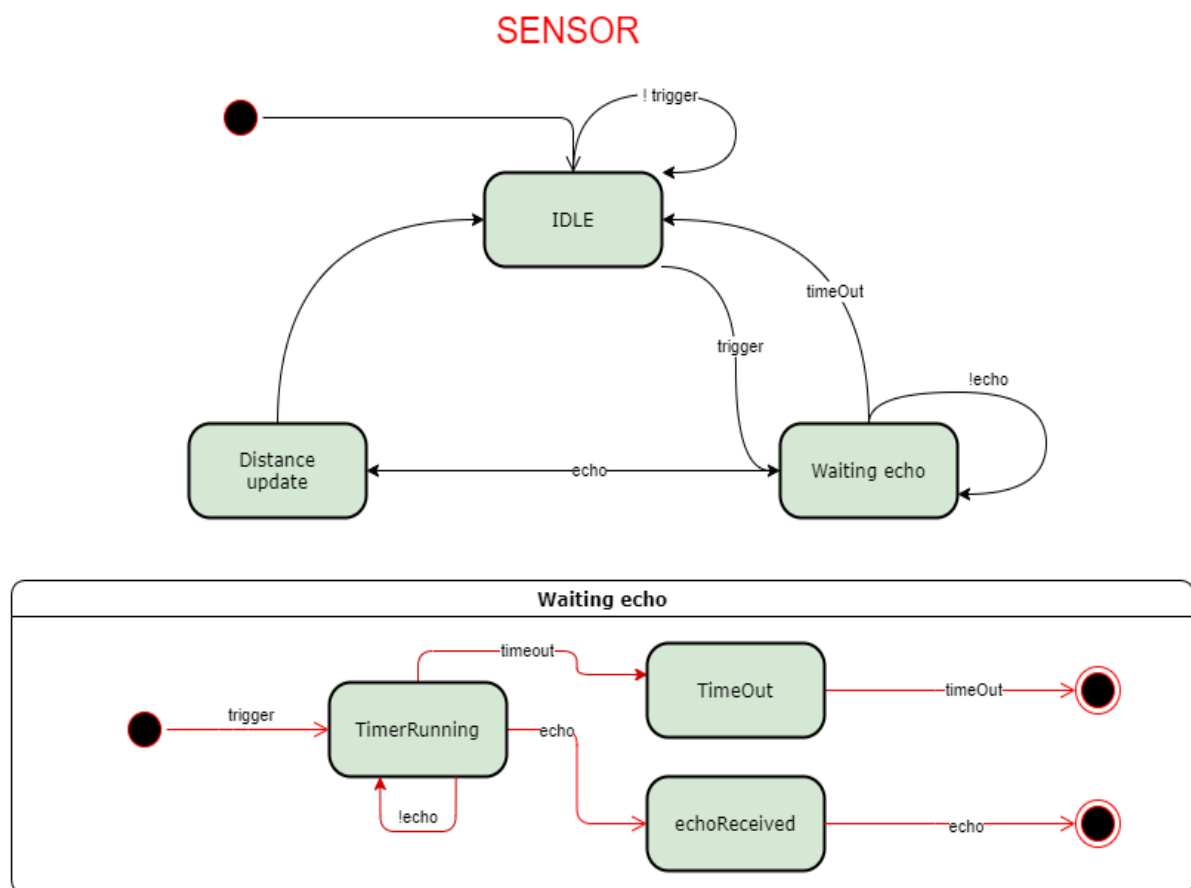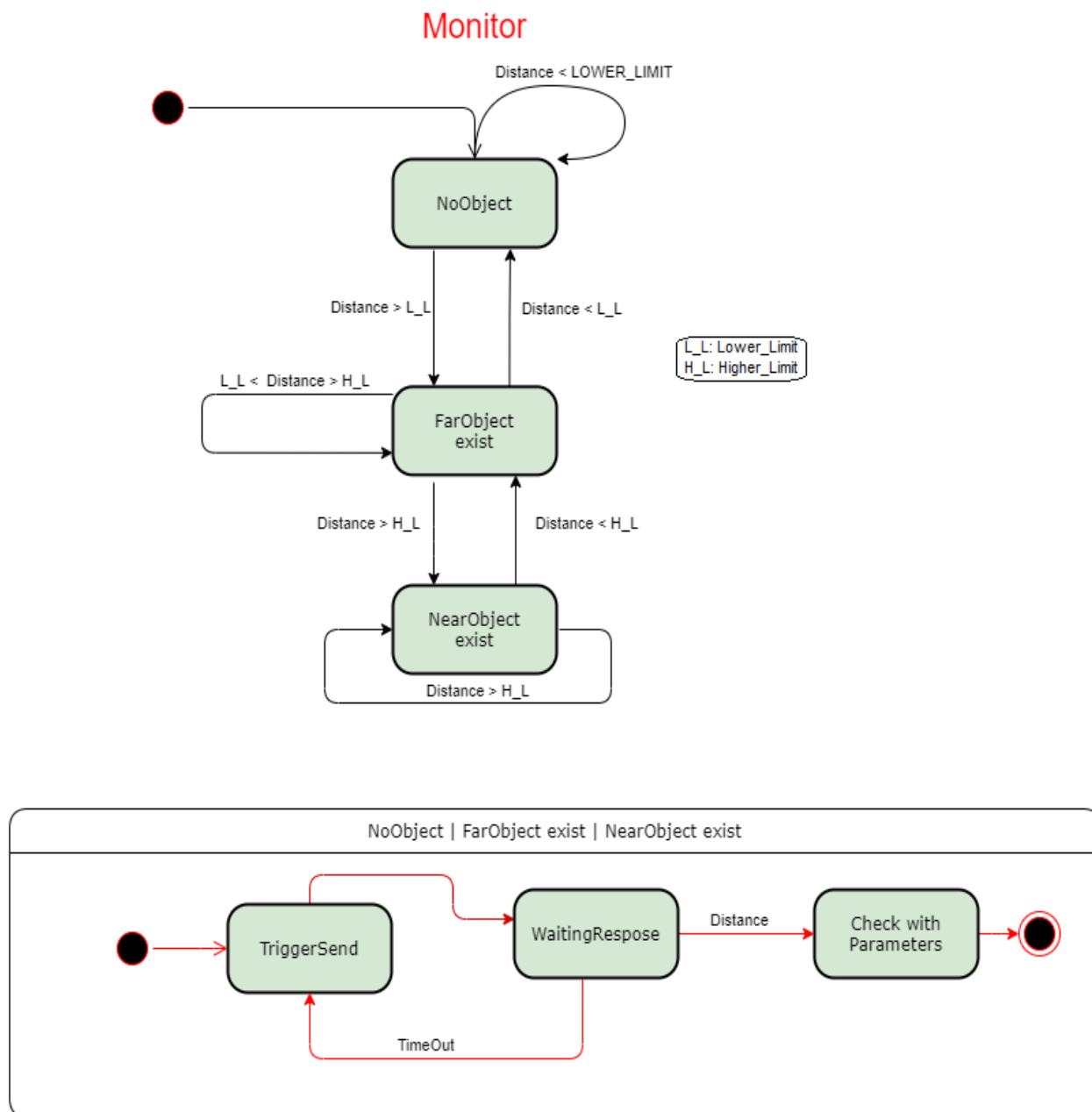
D - Sequence diagram to show the difference between control events when the object is exist and when not.