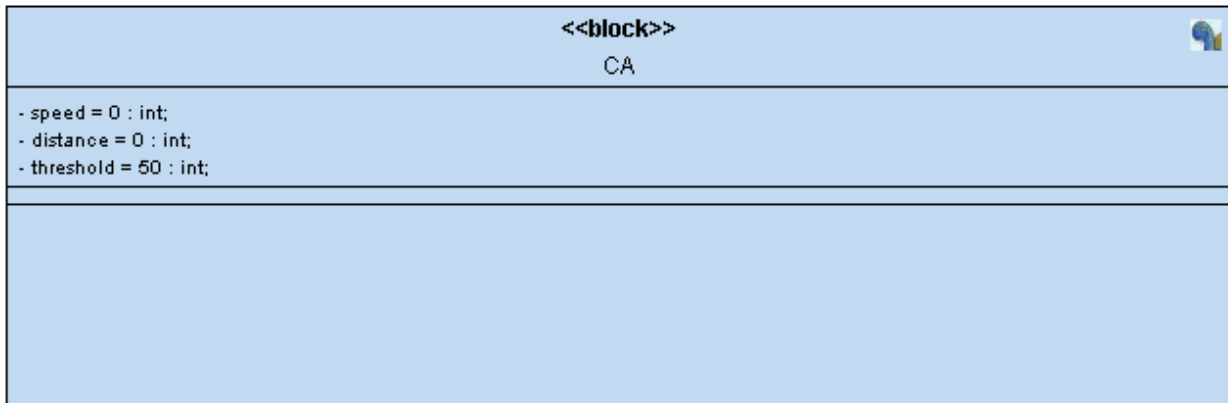


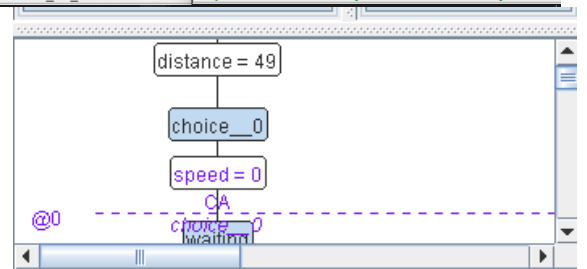
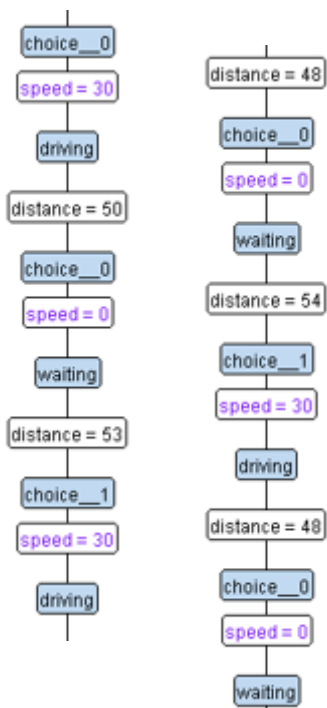
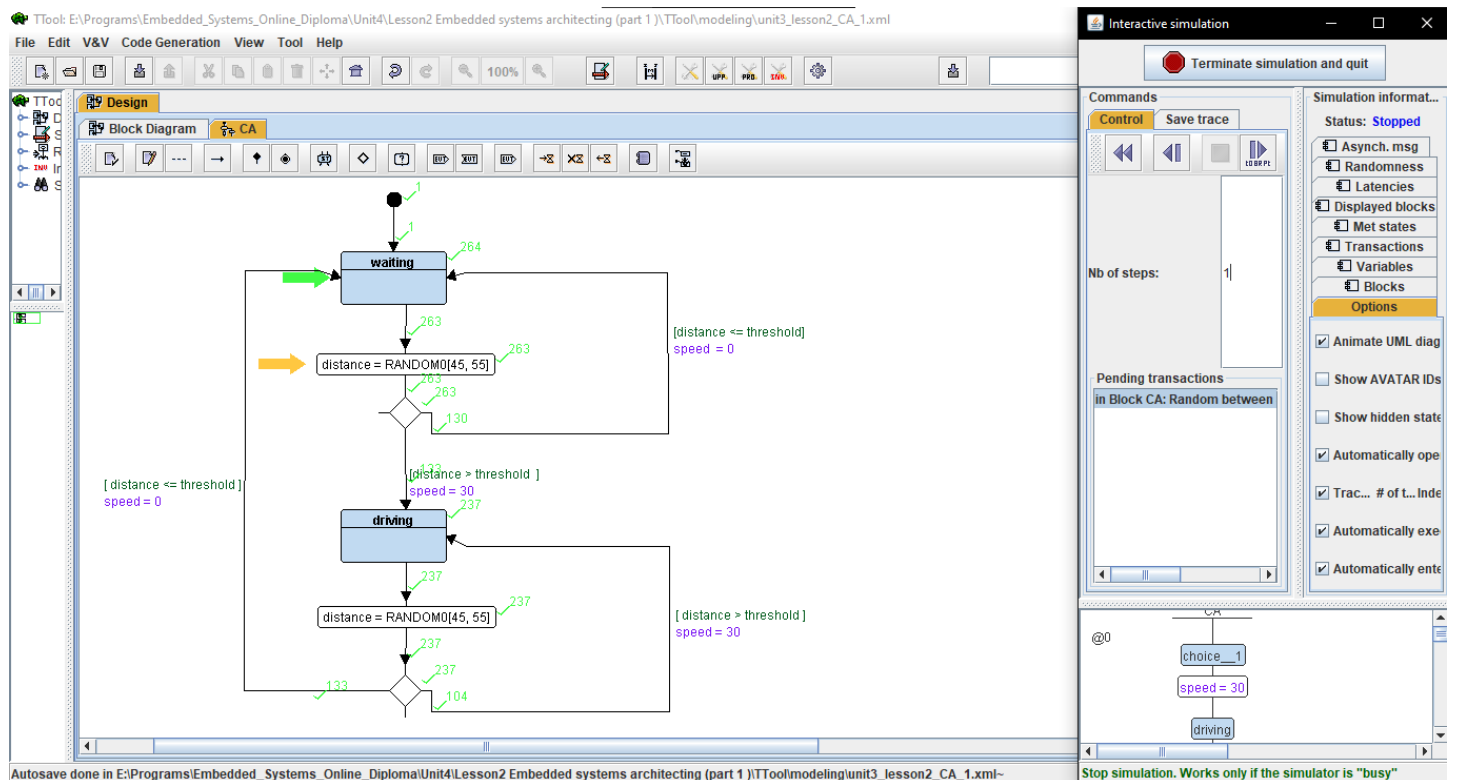
Ultrasonic Obstacle-avoiding

Using 1 Module

The module Block diagram



State machine

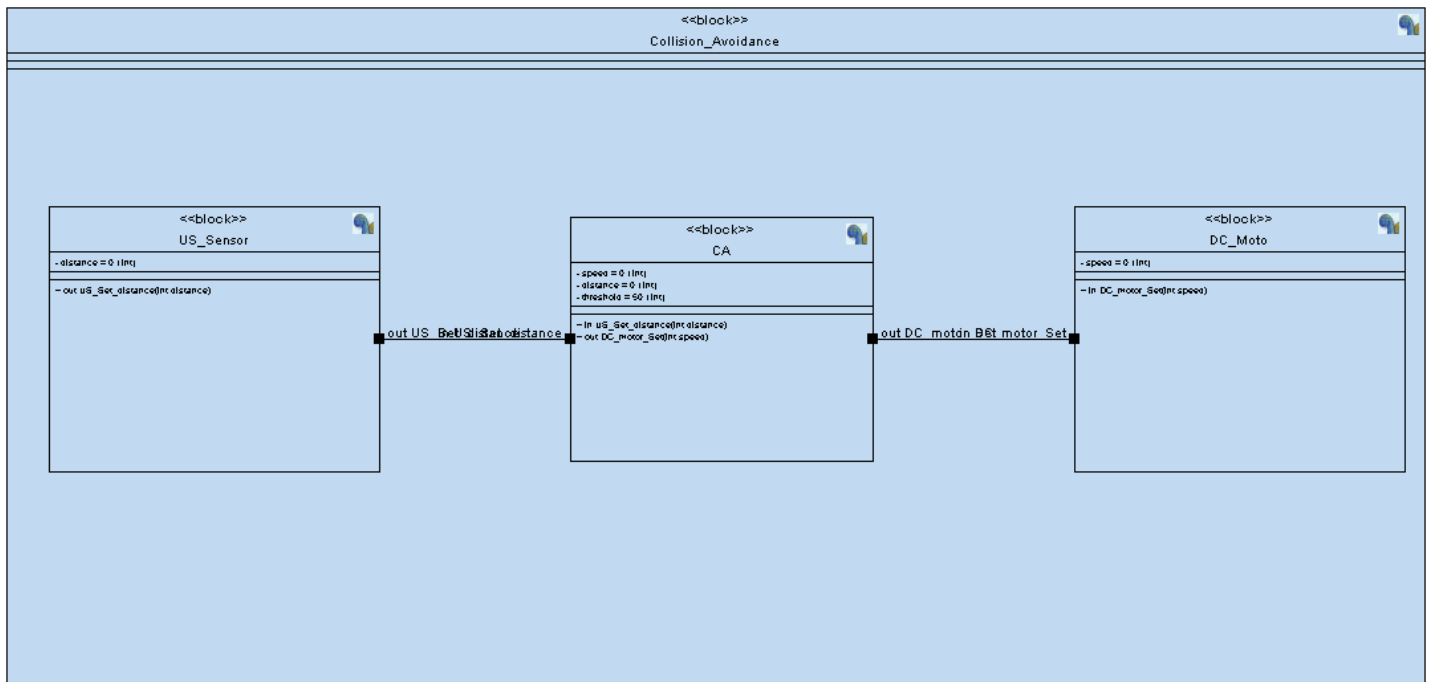


Output code

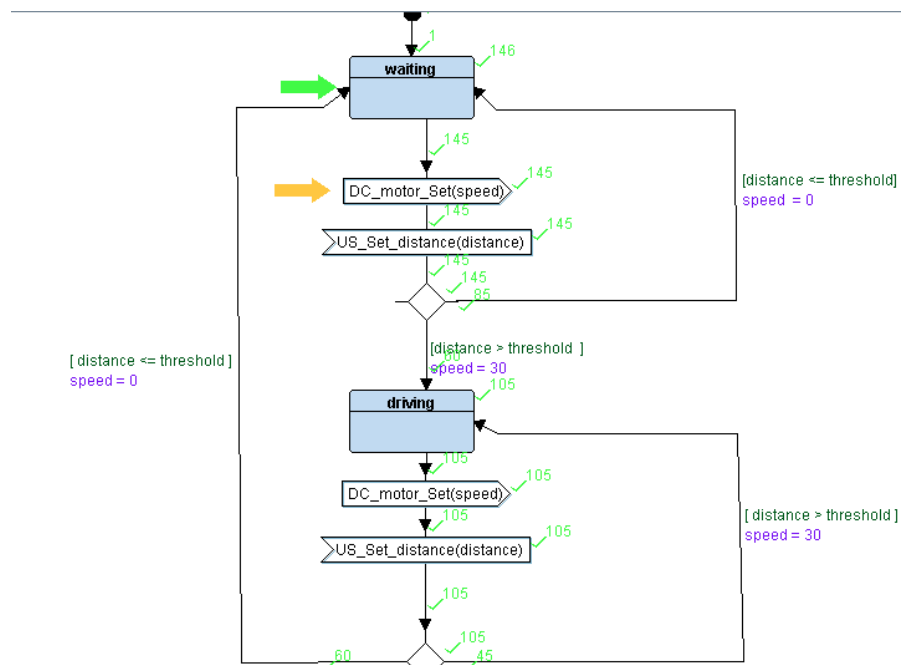
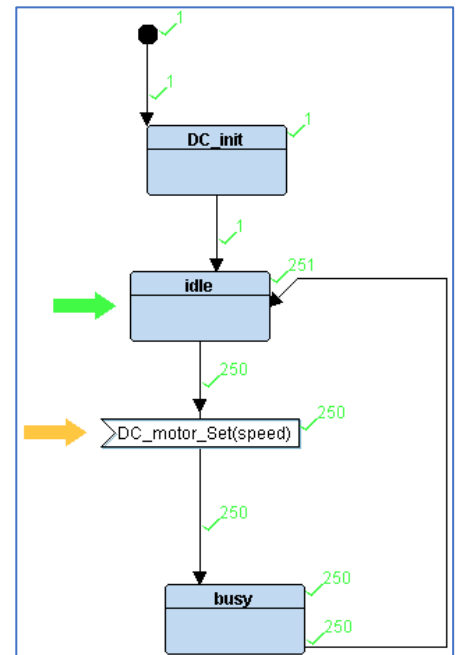
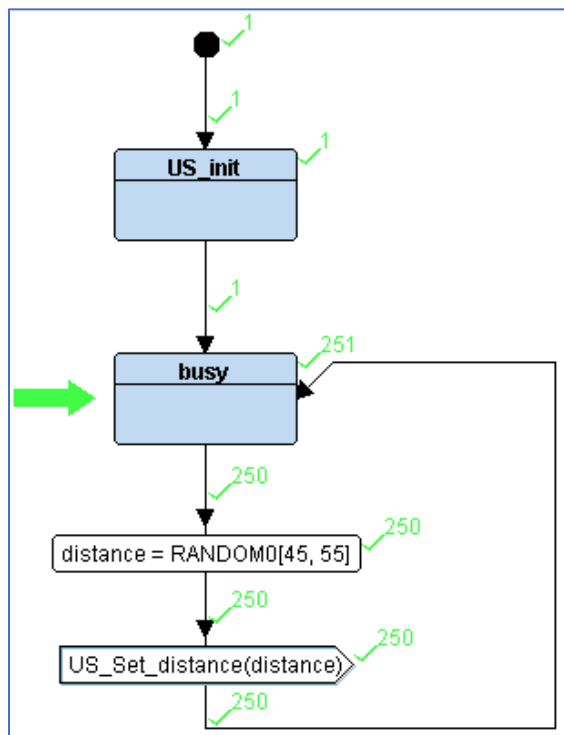
```
CA_Waiting State: distance = 18 Speed = 0
CA_Waiting State: distance = 15 Speed = 0
CA_Waiting State: distance = 42 Speed = 0
CA_Waiting State: distance = 20 Speed = 0
CA_Waiting State: distance = 35 Speed = 0
CA_Waiting State: distance = 18 Speed = 0
CA_Waiting State: distance = 52 Speed = 0
CA_Driving State: distance = 55 Speed = 30
CA_Driving State: distance = 43 Speed = 30
CA_Waiting State: distance = 28 Speed = 0
CA_Waiting State: distance = 17 Speed = 0
CA_Waiting State: distance = 24 Speed = 0
CA_Waiting State: distance = 21 Speed = 0
CA_Waiting State: distance = 7 Speed = 0
CA_Waiting State: distance = 34 Speed = 0
CA_Waiting State: distance = 46 Speed = 0
CA_Waiting State: distance = 32 Speed = 0
CA_Waiting State: distance = 19 Speed = 0
CA_Waiting State: distance = 10 Speed = 0
CA_Waiting State: distance = 22 Speed = 0
CA_Waiting State: distance = 7 Speed = 0
CA_Waiting State: distance = 14 Speed = 0
CA_Waiting State: distance = 35 Speed = 0
CA_Waiting State: distance = 53 Speed = 0
CA_Driving State: distance = 55 Speed = 30
CA_Driving State: distance = 55 Speed = 30
CA_Driving State: distance = 8 Speed = 30
```

Using 3 Modules

The block diagram for modules



State machines



Output

The screenshot displays a development environment with two main windows. The left window is a log viewer showing a sequence of state transitions for three components: CA, DC_Moto, and US_Rensor. The right window shows a state machine diagram titled 'simulationtrace_fromtool.p...'.

Log Window Content (Lines 1-42):

```
1 US_init
2 DC_init
3 US_Waiting State: distance = 42
4 US -----distance = 42-----> CA
5 CA_Waiting State: distance = 42 Speed = 0
6 CA -----speed = 0-----> DC
7 DC_busy State: Speed = 0
8 US_Waiting State: distance = 43
9 US -----distance = 43-----> CA
10 CA_Waiting State: distance = 43 Speed = 0
11 CA -----speed = 0-----> DC
12 DC_busy State: Speed = 0
13 US_Waiting State: distance = 10
14 US -----distance = 10-----> CA
15 CA_Waiting State: distance = 10 Speed = 0
16 CA -----speed = 0-----> DC
17 DC_busy State: Speed = 0
18 US_Waiting State: distance = 46
19 US -----distance = 46-----> CA
20 CA_Waiting State: distance = 46 Speed = 0
21 CA -----speed = 0-----> DC
22 DC_busy State: Speed = 0
23 US_Waiting State: distance = 30
24 US -----distance = 30-----> CA
25 CA_Waiting State: distance = 30 Speed = 0
26 CA -----speed = 0-----> DC
27 DC_busy State: Speed = 0
28 US_Waiting State: distance = 50
29 US -----distance = 50-----> CA
30 CA_Waiting State: distance = 50 Speed = 0
31 CA -----speed = 0-----> DC
32 DC_busy State: Speed = 0
33 US_Waiting State: distance = 39
34 US -----distance = 39-----> CA
35 CA_Waiting State: distance = 39 Speed = 0
36 CA -----speed = 0-----> DC
37 DC_busy State: Speed = 0
38 US_Waiting State: distance = 44
39 US -----distance = 44-----> CA
40 CA_Waiting State: distance = 44 Speed = 0
41 CA -----speed = 0-----> DC
42 DC_busy State: Speed = 0
```

State Machine Diagram:

The diagram illustrates the state transitions for the CA, DC_Moto, and US_Rensor components. It includes states like 'waiting', 'busy', and 'choice_1'. Transitions are labeled with events such as 'DC_motor_Set(0)', 'US_Set_distance(49)', and 'US_Set_distance(55)'. The diagram shows a sequence of states and transitions corresponding to the log output.

```
74 US -----distance = 7-----> CA
75 CA_Waiting State: distance = 7 Speed = 30
76 CA -----speed = 0-----> DC
77 DC_busy State: Speed = 0
78 US_Waiting State: distance = 52
79 US -----distance = 52-----> CA
80 CA_Driving State: distance = 52 Speed = 0
81 CA -----speed = 30-----> DC
82 DC_busy State: Speed = 30
83 US_Waiting State: distance = 26
84 US -----distance = 26-----> CA
85 CA_Waiting State: distance = 26 Speed = 30
86 CA -----speed = 0-----> DC
87 DC_busy State: Speed = 0
88 US_Waiting State: distance = 8
89 US -----distance = 8-----> CA
90 CA_Waiting State: distance = 8 Speed = 0
91 CA -----speed = 0-----> DC
92 DC_busy State: Speed = 0
93 US_Waiting State: distance = 43
94 US -----distance = 43-----> CA
95 CA_Waiting State: distance = 43 Speed = 0
96 CA -----speed = 0-----> DC
97 DC_busy State: Speed = 0
98 US_Waiting State: distance = 47
99 US -----distance = 47-----> CA
100 CA_Waiting State: distance = 47 Speed = 0
101 CA -----speed = 0-----> DC
102 DC_busy State: Speed = 0
103 US_Waiting State: distance = 52
```