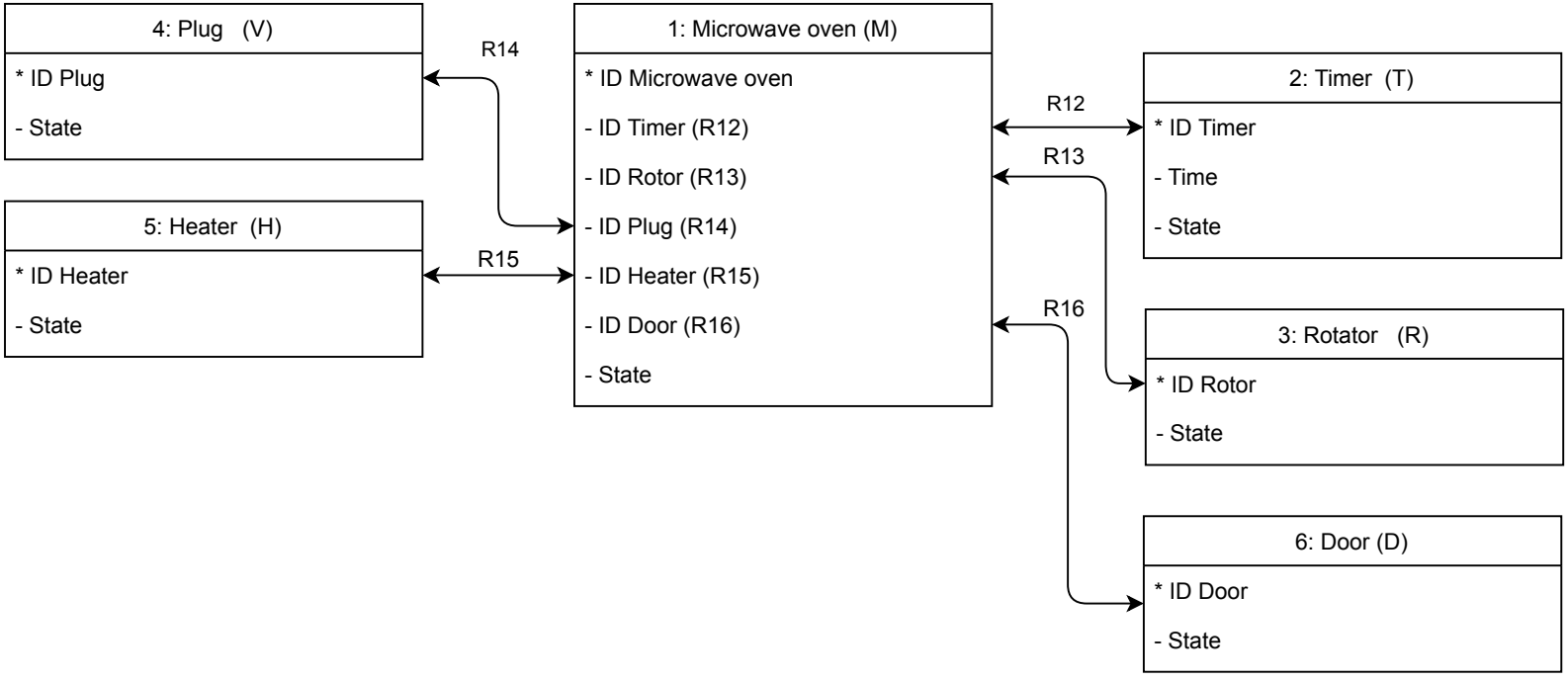
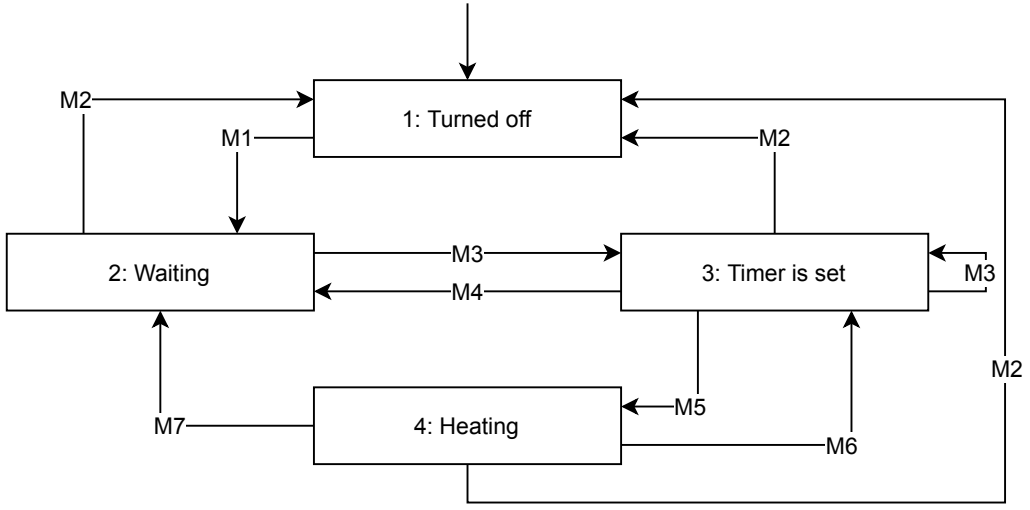
Information diagram



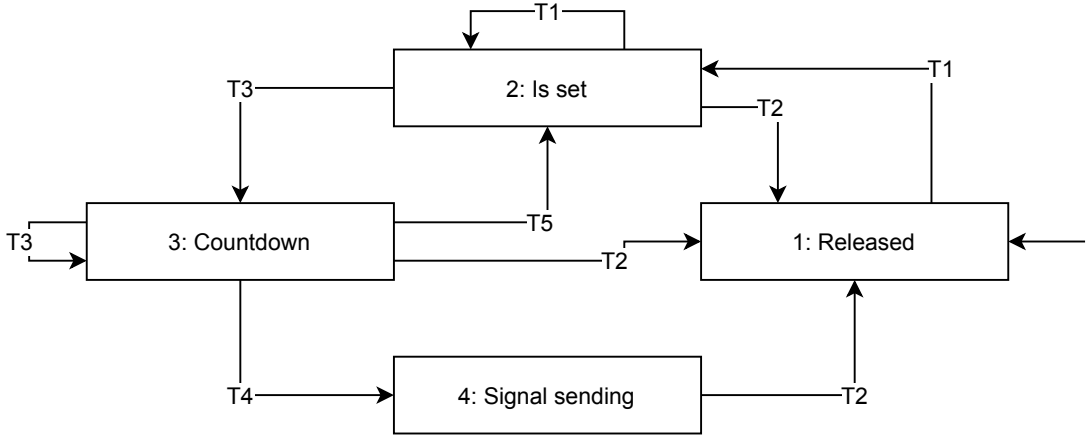
State Transition Diagram



Microwave oven

M1: Turn ON
M2: Turn Off
M3: Set timer
M4: Reset
M5: Start heating
M6: Pause heating
M7: Heating finished

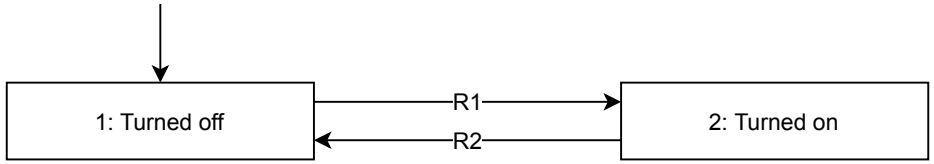
№	M1	M2	M3	M4	M5	M6	M7
1	2	-	-	-	-	-	-
2	-	1	3	-	-	-	-
3	-	1	3	2	4	-	-
4	-	1	-	-	-	3	2



Timer

T1: Set
T2: Reset
T3: Start
T4: Timeout
T5: Stop

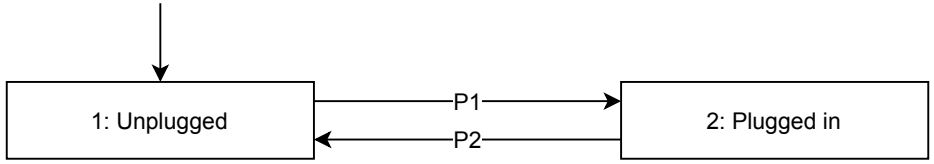
№	T1	T2	T3	T4	T5
1	2	-	-	-	-
2	2	1	3	-	-
3	-	1	3	4	2
4	-	1	-	-	-



Rotator

R1: Start rotating
R2: Stop rotating

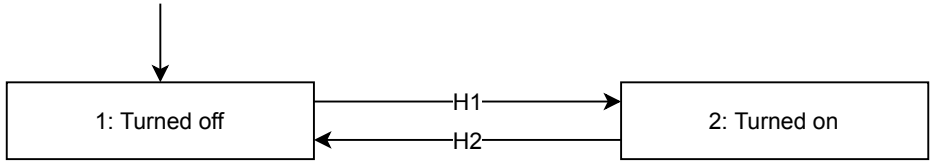
№	R1	R2
1	2	-
2	-	1



Plug

P1: Plug in
P2: Unplug

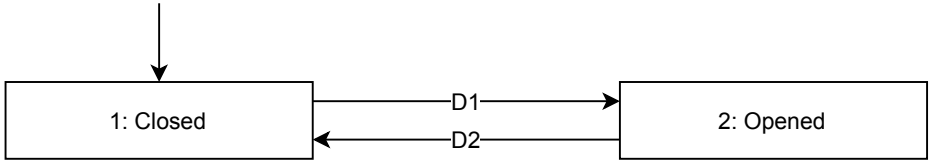
№	P1	P2
1	2	-
2	-	1



Heater

H1: Start heating
H2: Stop heating

№	H1	H2
1	2	-
2	-	1

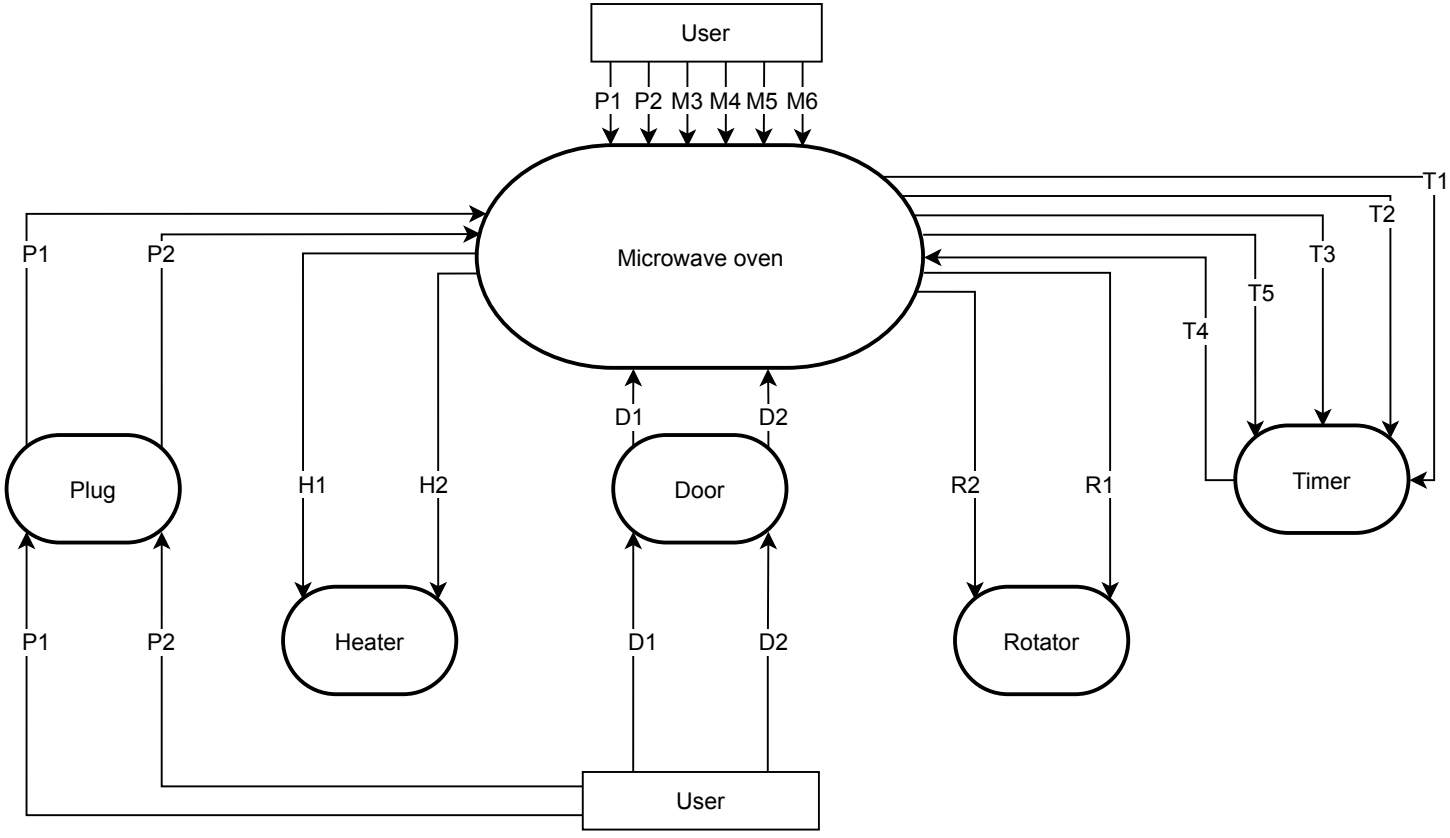


Door

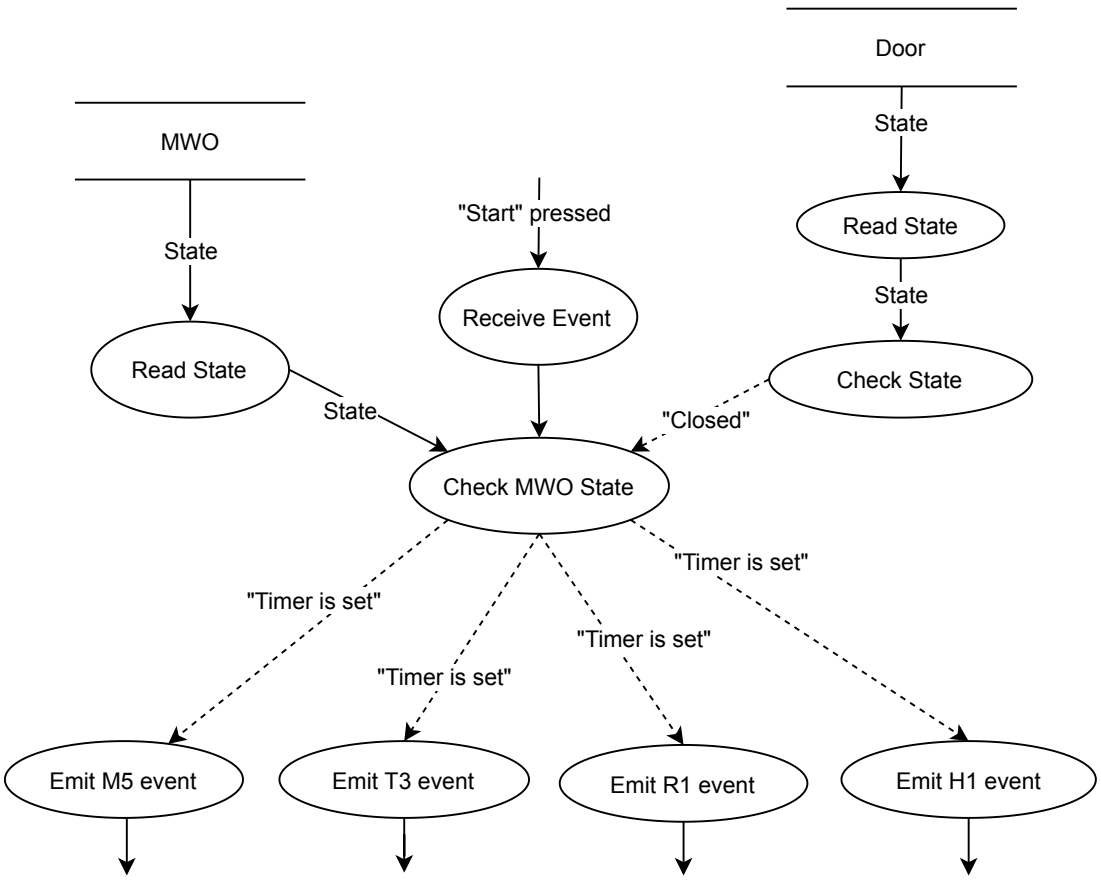
D1: Open
D2: Close

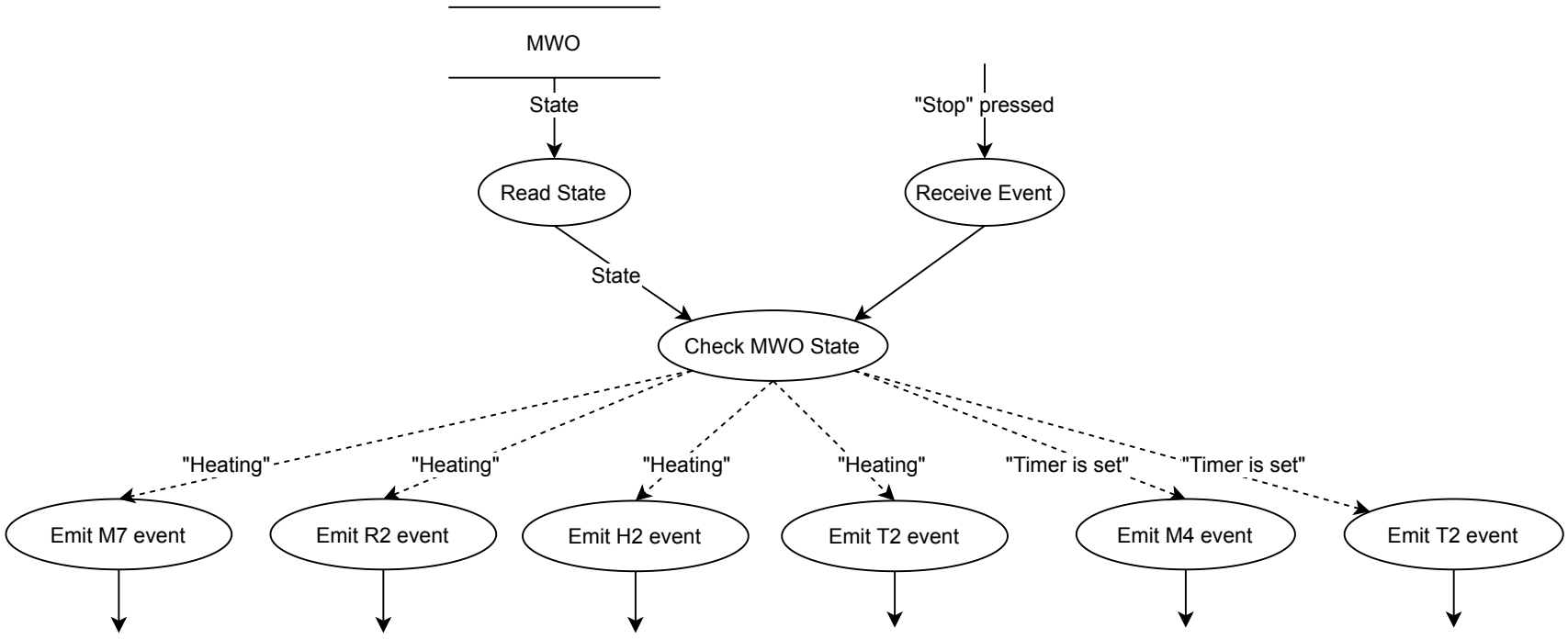
№	D1	D2
1	2	-
2	-	1

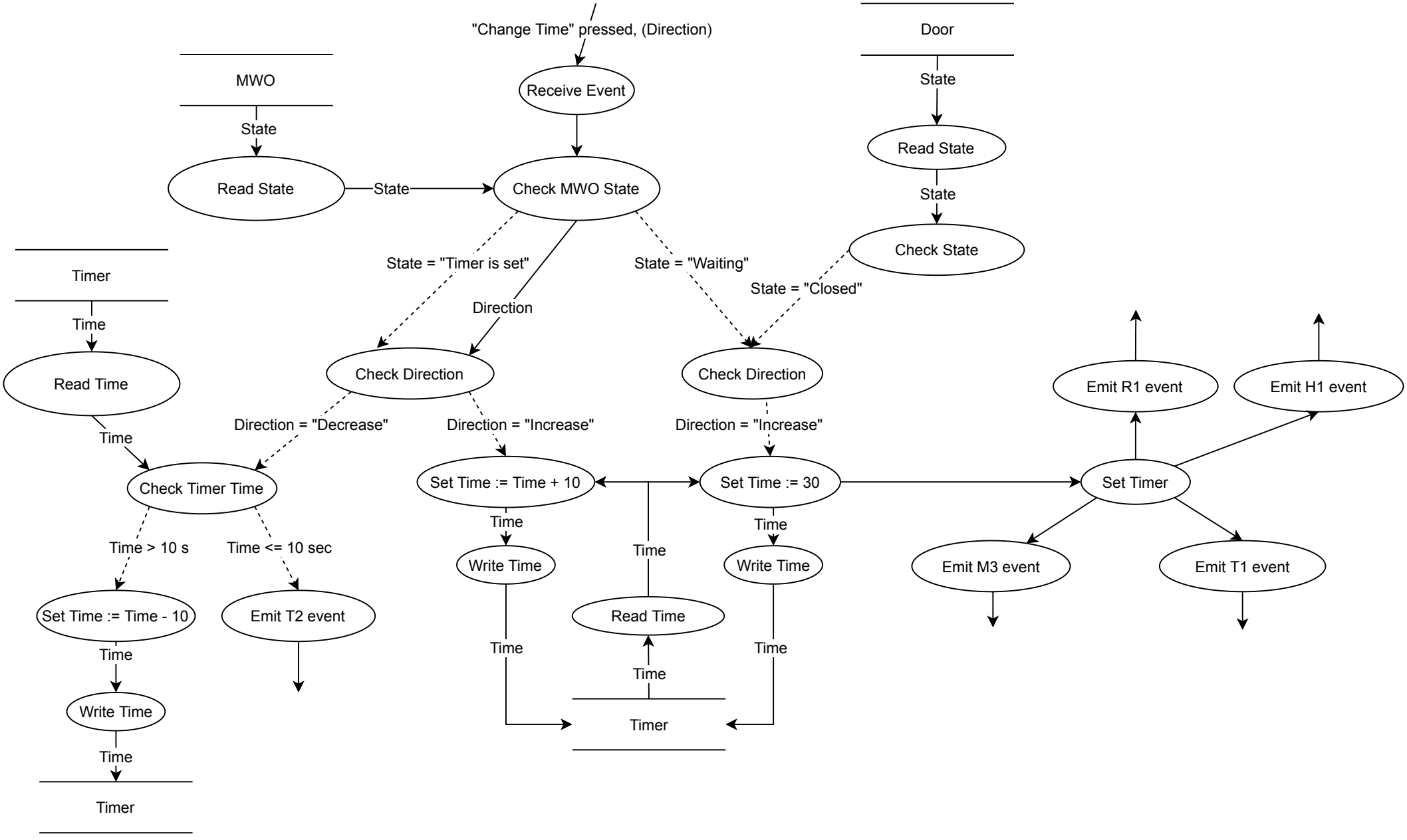
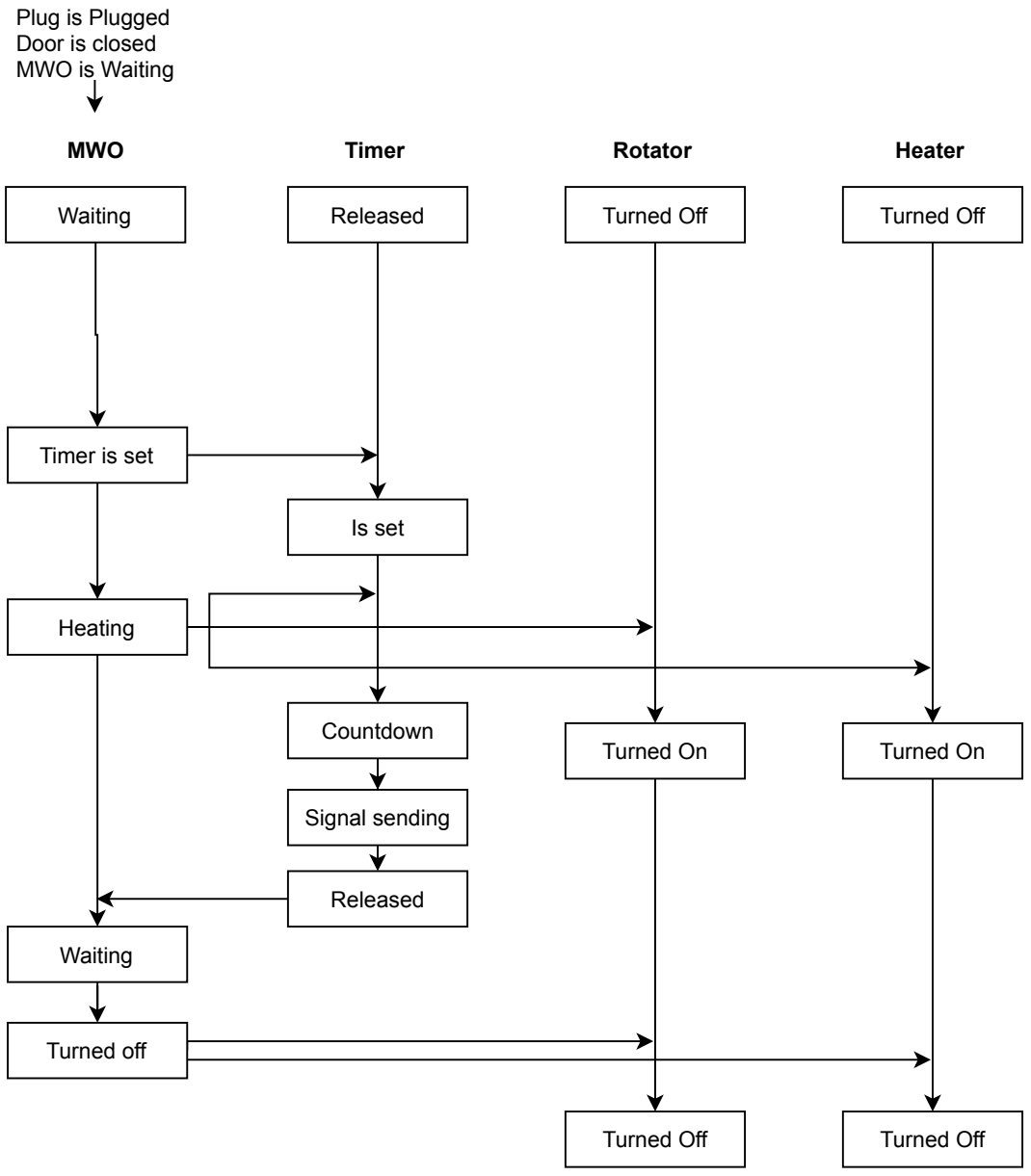
Object Interaction Model



Data flow diagram




MWO
State
"Stop" pressed
Read State
Receive Event
State
Check MWO State
"Heating"
"Heating"
"Heating"
"Heating"
"Timer is set"
"Timer is set"
Emit M7 event
Emit R2 event
Emit H2 event
Emit T2 event
Emit M4 event
Emit T2 event


"Change Time" pressed, (Direction)
Receive Event
MWO
State
Read State
State
Check MWO State
Door
State
Read State
State
Check State
State = "Closed"
State = "Timer is set"
State = "Waiting"
Direction
Timer
Time
Read Time
Time
Check Direction
Check Direction
Direction = "Decrease"
Direction = "Increase"
Direction = "Increase"
Check Timer Time
Set Time := Time + 10
Set Time := 30
Set Timer
Emit R1 event
Emit H1 event
Time > 10 s
Time <= 10 sec
Time
Time
Time
Write Time
Write Time
Emit M3 event
Emit T1 event
Set Time := Time - 10
Emit T2 event
Read Time
Time
Time
Time
Time
Write Time
Time
Timer
Timer

Control Channel