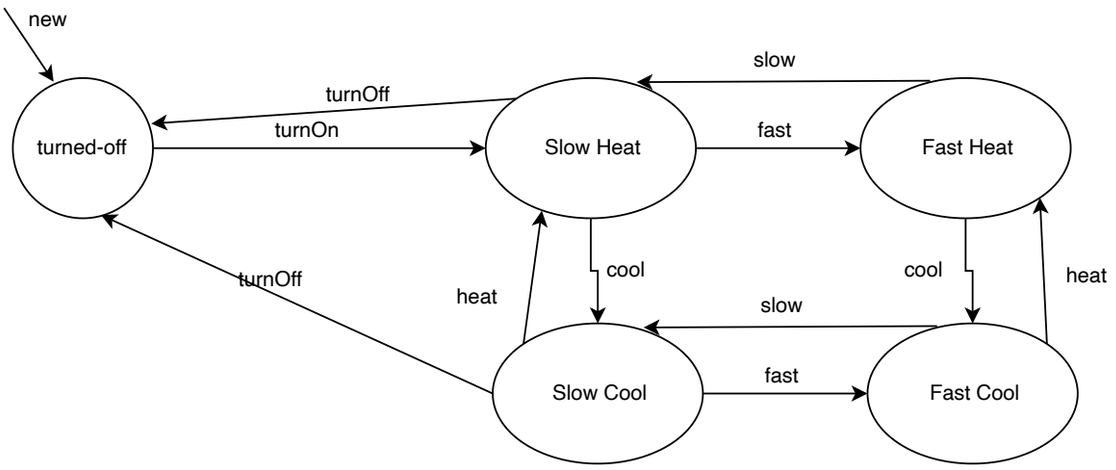
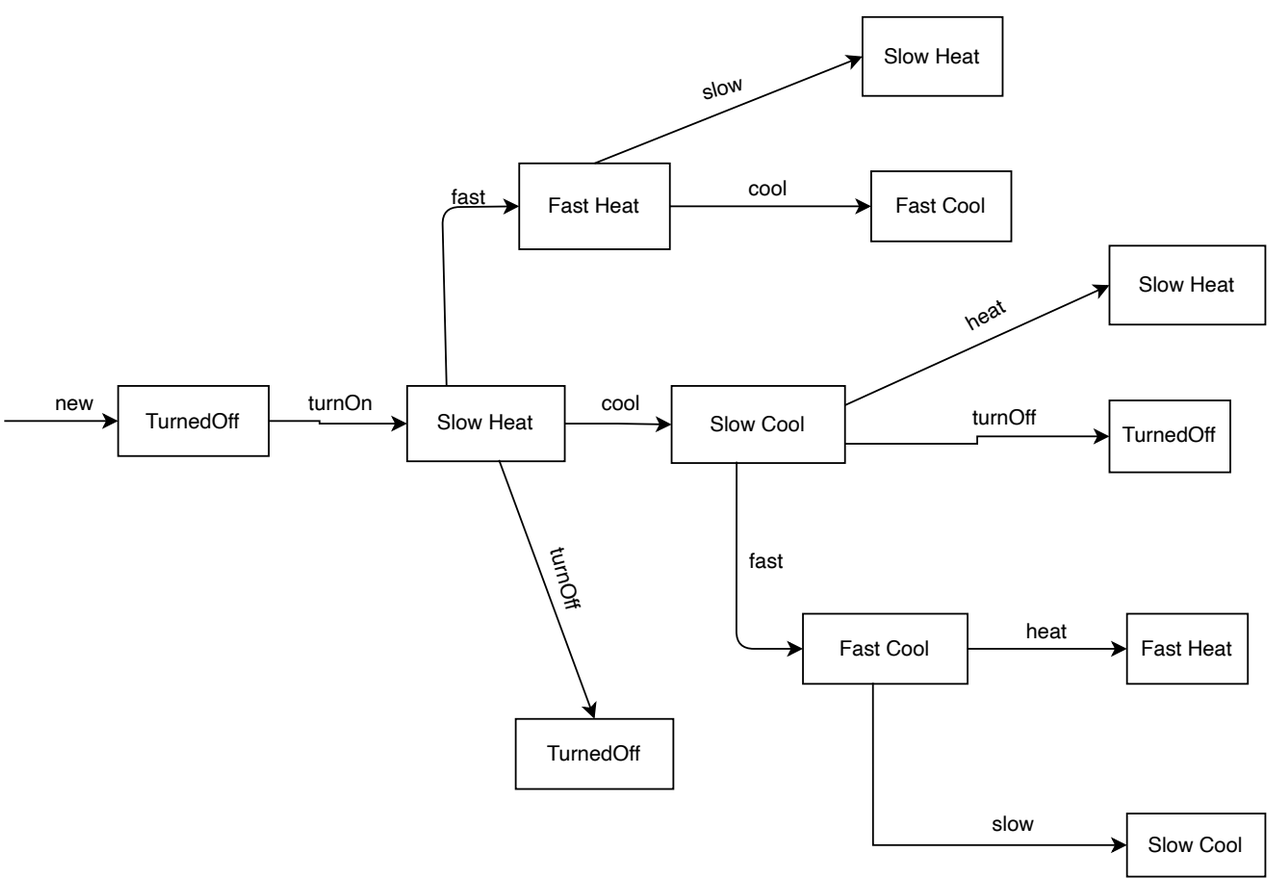
Step 1 - Build the state model of fan



Step 2 - Expand the guards of transitions with conditions 8pre or post)

Nothing to do in this case since there are not transitions with guards

Step 3 - Generate Transition tree



Step 4 - Generate conformance test suite

new	Level 1	Level 2	Level 3	Level 4	Level 5	Expected State	Exception
1	new					TurnedOff	--
2	new	turnOn				Slow Heat	--
3	new	turnOn	fast			Fast Heat	--
4	new	turnOn	fast	slow		Slow Heat	--
5	new	turnOn	fast	cool		Fast Cool	--
6	new	turnOn	cool			Slow Cool	--
7	new	turnOn	cool	heat		Slow Heat	--
8	new	turnOn	cool	turOff		TurnedOff	--
9	new	turnOn	cool	fast		Fast Cool	--
10	new	turnOn	cool	fast	heat	Fast Heat	--
11	new	turnOn	cool	fast	slow	Slow Cool	--
12	new	turnOn	turnOff			TurnedOff	--

Step 5 - Additional test cases
Nothing to do in this case since all transitions do not have a guard

Step 7 - Develop Sneak path test suite

Transition Table

Methods	States				
	Turned Off	Slow Heat	Fast Heat	Slow Cool	Fast Cool
turnOff()	PSP	ok	PSP	ok	PSP
turnOn()	ok	PSP	PSP	PSP	PSP
slow()	PSP	PSP	ok	PSP	ok
fast()	PSP	ok	PSP	ok	PSP
heat()	PSP	PSP	PSP	ok	ok
cool()	PSP	ok	ok	PSP	PSP

We can update the transition tree with all transitions that concern PSP, using a different color

Sneak path test suite

new	Level 1	Level 2	Level 3	Level 4	Level 5	Expected State	Exception
13	new	turnOff				TurnedOff	Yes
14	new	slow				TurnedOff	Yes
15	new	fast				TurnedOff	Yes
16	new	cool				TurnedOff	Yes
17	new	heat				TurnedOff	Yes
18	new	turnOn	turnOn			Slow Heat	Yes
19	new	turnOn	slow			Slow Heat	Yes
20	new	turnOn	heat			Slow Heat	Yes
21	new	turnOn	fast	turnOff		Fast Heat	Yes
22	new	turnOn	fast	turnOff		Fast Heat	Yes
23	new	turnOn	fast	fast		Fast Heat	Yes
24	new	turnOn	fast	heat		Fast Heat	Yes
25	new	turnOn	cool	turnOn		Slow Cool	Yes
26	new	turnOn	cool	slow		Slow Cool	Yes
27	new	turnOn	cool	cool		Slow Cool	Yes
28	new	turnOn	cool	fast	turnOff	Fast Cool	Yes
29	new	turnOn	cool	fast	turnOn	Fast Cool	Yes
30	new	turnOn	cool	fast	fast	Fast Cool	Yes
31	new	turnOn	cool	fast	cool	Fast Cool	Yes