Number	Arms_down	Alarm_on		Northbound_present	Southbound_present	north_approach	north_depart	south_approach	south_depart	time_elapsed	safety_hazard	Transition State
	0	0	0	(0	C		0	0	0	0 No	0
	1	0	0	(1	C		0	1	0	0 Yes 16	
	2	0	0	1	0	1		0	0	0	0 Yes 16	
	3	0	0	1	1	1		0	1	0	0 Yes 16	
	4	0	1	(0	C		0	0	0	1 No	0
	5	0	1	(1	C		0	1	0	1 No	4
	6	0	1	1	0	1		0	0	0	1 No	4
	7	0	1	1	1	1		0	1	0	1 No	4
	8	1	0	(0	C		0	0	0	0 No	4
	9	1	0	(1	C		0	1	0	0 Yes 16	
	10	1	0	1	0	1		0	0	0	0 Yes 16	
	11	1	0	1	1	1		0	1	0	0 Yes 16	
	12	1	1	(0	C		0	0	0	1 No	0
	13	1	1	(1	C		0	0	1	1 No	0
	14	1	1	1	0	C		1	0	0	1 No	0
	15	1	1	1	1	C		1	0	1	1 No	0
Number	Invariant											
	16 When a train is pr	esent the arms mu	st be down ar	nd the alarm on.								
	17											