

Current State	Input Conditions	Next State
STARTUP_FLASH	timer_count < 5	STARTUP_FLASH
STARTUP_FLASH	timer_count >= 5	NS_GREEN_EW_RED
NS_GREEN_EW_RED	emergency	EMERGENCY_ALL_RED
NS_GREEN_EW_RED	!emergency AND timer_count >= 30	NS_YELLOW_EW_RED
NS_YELLOW_EW_RED	emergency	EMERGENCY_ALL_RED
NS_YELLOW_EW_RED	!emergency AND timer_count >= 5 AND ped_latch	PEDESTRIAN_CROSSING
NS_YELLOW_EW_RED	!emergency AND timer_count >= 5 AND !ped_latch	NS_RED_EW_GREEN
NS_RED_EW_GREEN	emergency	EMERGENCY_ALL_RED
NS_RED_EW_GREEN	!emergency AND timer_count >= 30	NS_RED_EW_YELLOW
NS_RED_EW_YELLOW	emergency	EMERGENCY_ALL_RED
NS_RED_EW_YELLOW	!emergency AND timer_count >= 5 AND ped_latch	PEDESTRIAN_CROSSING
NS_RED_EW_YELLOW	!emergency AND timer_count >= 5 AND !ped_latch	NS_GREEN_EW_RED
PEDESTRIAN_CROSSING	emergency	EMERGENCY_ALL_RED
PEDESTRIAN_CROSSING	!emergency AND timer_count >= 10	return_state
EMERGENCY_ALL_RED	!emergency	STARTUP_FLASH
EMERGENCY_ALL_RED	emergency	EMERGENCY_ALL_RED

Outputs (ns_lights; ew_lights; ped_walk; emergency_active)
FLASH (11); FLASH (11); 0; 0
FLASH (11); FLASH (11); 0; 0
GREEN (01); RED (00); 0; 0
GREEN (01); RED (00); 0; 0
YELLOW (10); RED (00); 0; 0
YELLOW (10); RED (00); 0; 0
YELLOW (10); RED (00); 0; 0
RED (00); GREEN (01); 0; 0
RED (00); GREEN (01); 0; 0
RED (00); YELLOW (10); 0; 0
RED (00); YELLOW (10); 0; 0
RED (00); YELLOW (10); 0; 0
RED (00); RED (00); 1; 0
RED (00); RED (00); 1; 0
RED (00); RED (00); 0; 1
RED (00); RED (00); 0; 1