Four-Way Traffic Light

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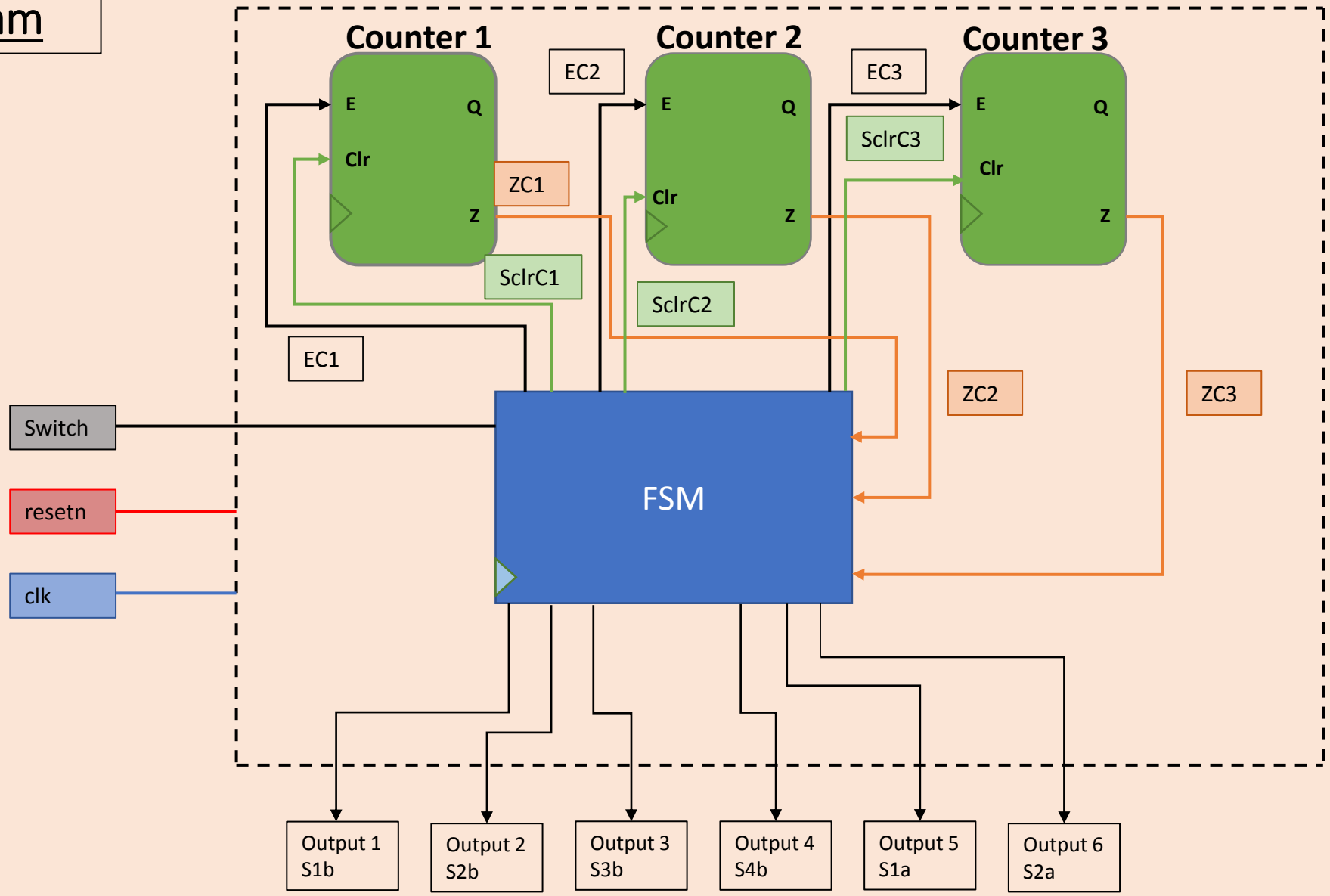
This circuit switches between day and night modes to provide traffic signals to an intersection. The daytime lights flash through red, yellow and green lights to signal when to stop, slow down and go. The nighttime lights have flashing yellows in two directions and flashing reds in the other two. This allows for safe and efficient travel in vehicles.

Block Diagram

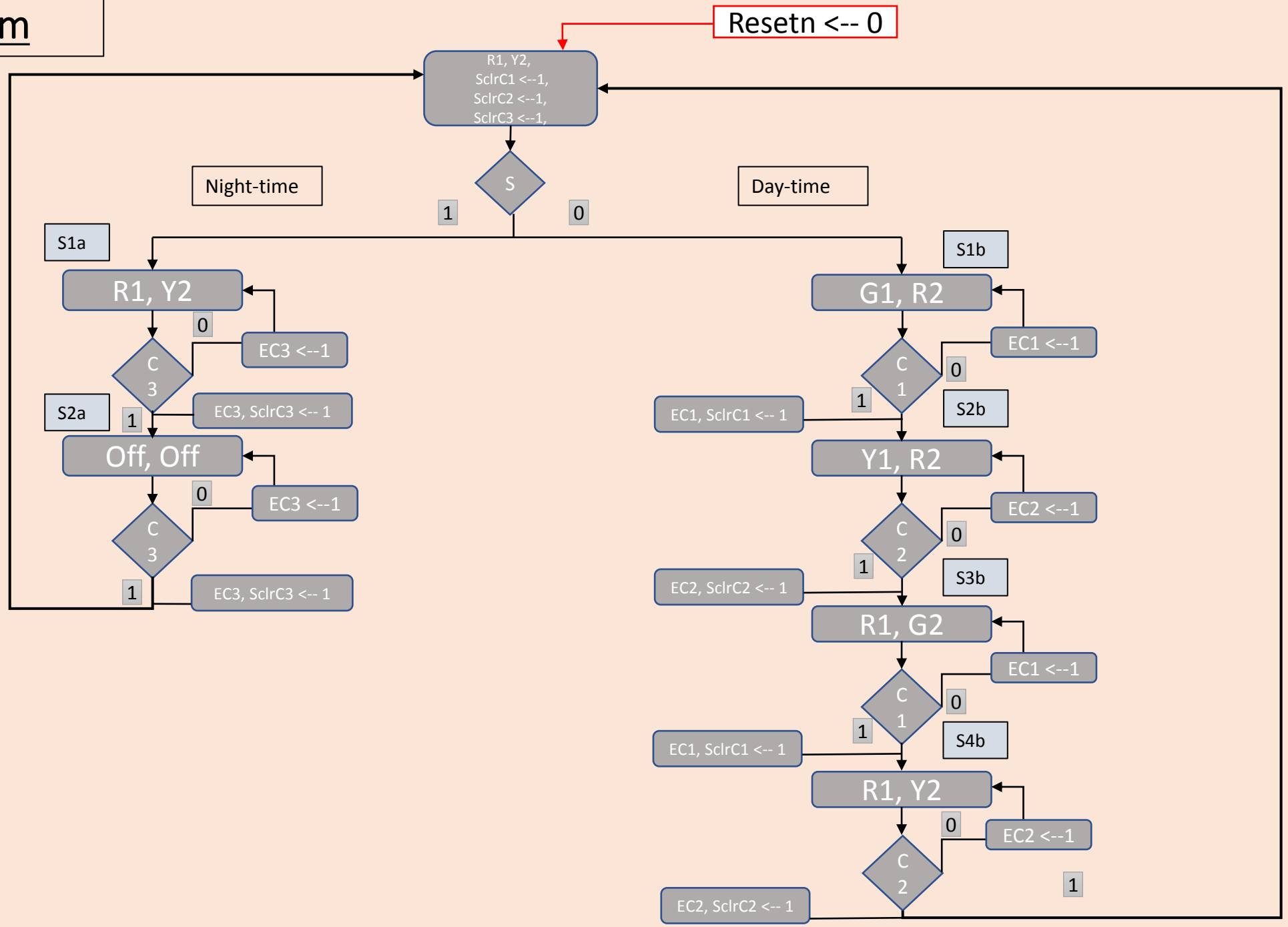
C1 = 10 sec
C2 = 2 sec
C3 = 0.5 sec



State Diagram

Green(G) = 001
Yellow(Y) = 010
Red (R) = 100

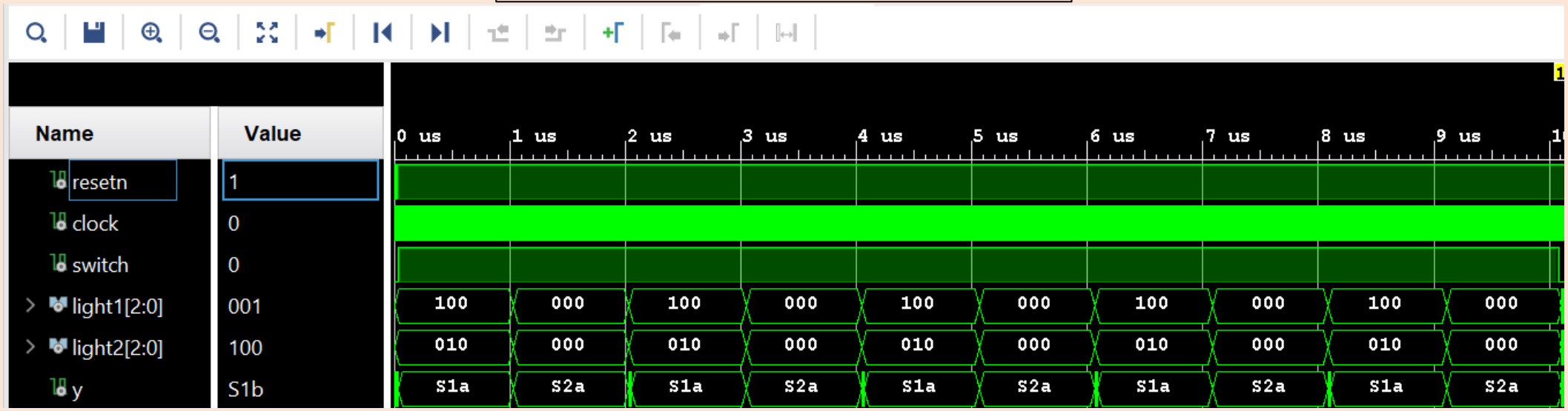
C1 = 10 sec
C2 = 2 sec
C3 = 0.5 sec



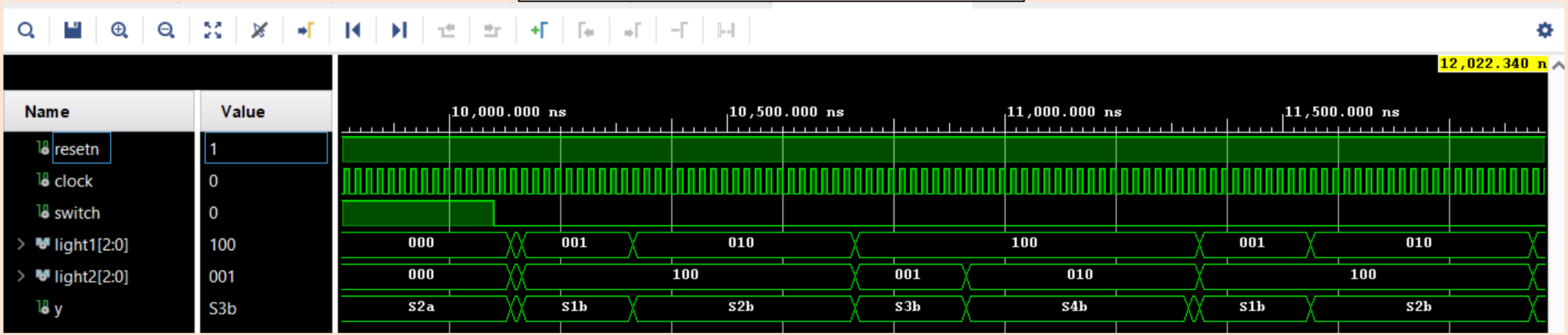
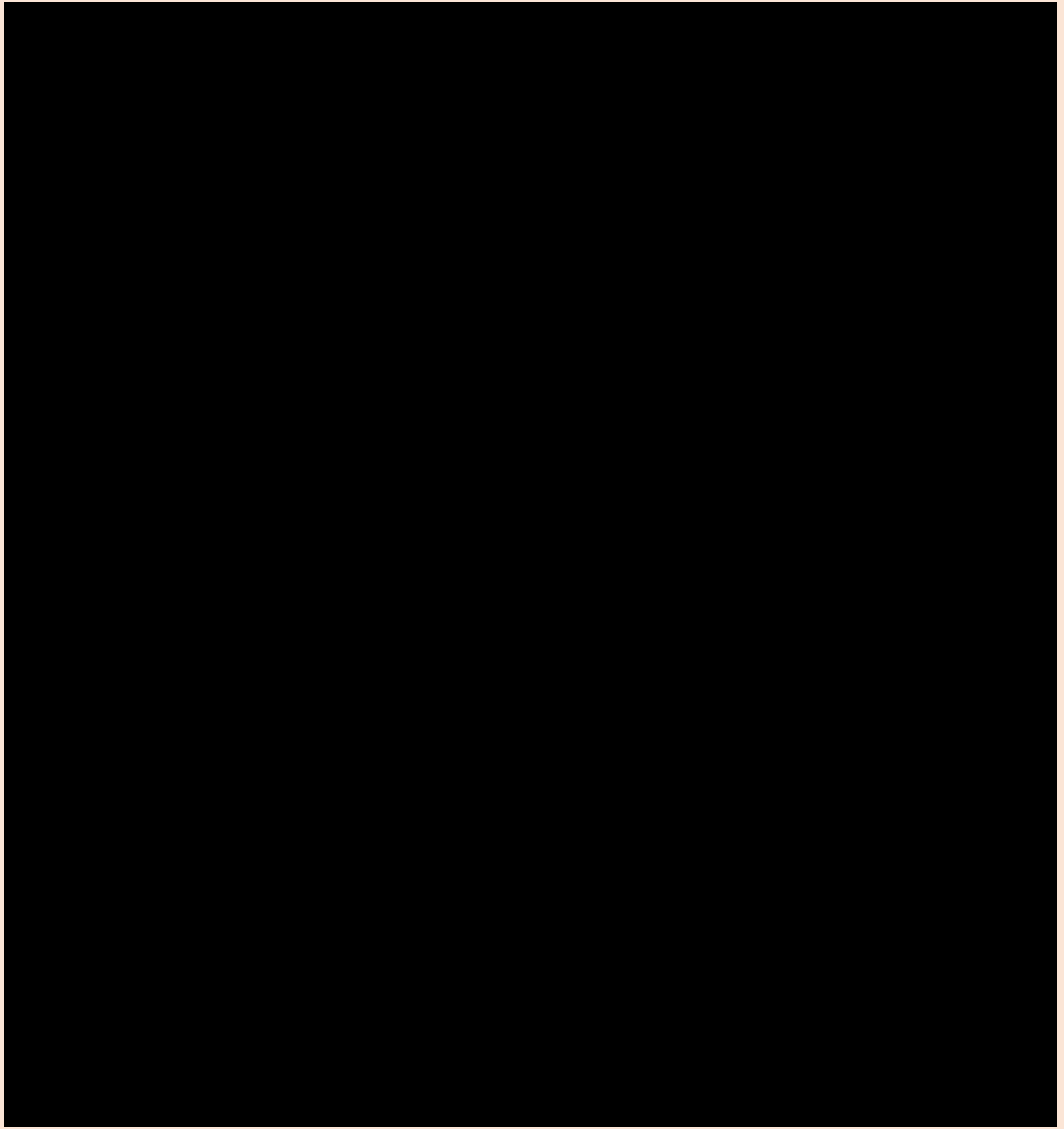
Behavioral Simulation

Green = 001
Yellow = 010
Red = 100

Nighttime Mode (switch =1)



Daytime Mode (switch =0)



Demo Video