FORMAL DESCRIPTION OF FINAL STATE MACHINE

FSM = (Q, ∑, δ, q0, F)

Q = {Red, Green, Amber}

∑ = {Time.Red, Time.Green, Time.Red, Button} NB: Time.x represents time to change to x state from previous state

δ = Q \* ∑

q0= {Red}

F = { }

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| δ | Time.Red | Time.Green | Time.Amber | Button |
| Red |  | Green |  |  |
| Green |  |  | Amber | Amber |
| Amber | Red |  |  |  |

LANGUAGE DESCRIPTION

**L** = ((**Time.Green** **Time.Amber Time.Red**)n (**Button Time.Amber Time.Red**))n

**Traffic Lights State Diagram**

