***Considerations:***

* North-South road has less traffic than East-West road.

***Conditions:***

* **When “Stop” = Active**.

***NS: North-South***

***EW: East-West***

* NS = RED (based on current state).
* EW = GREEN (based on current state).
* After 20 clock ticks, “**StopForTraffic**” = Active.
* When **“StopForTraffic” = Active**
* NS = RED (based on current state).
* EW = GREEN (based on current state).
* Checks sensor.
* If sensor indicates cars are waiting in the NS direction,

**“StopToGo”** = Active.

* When **“StopToGo” = Active**
* NS = RED (based on current state).
* EW = YELLOW (based on current state).
* Checks sensor.
* After 3 ticks, **“Go”** = Active.
* When **“Go” = Active**
* NS = GREEN (based on current state).
* EW = RED (based on current state).
* After 10 ticks, **“GoToStop”** = Active.
* When **“GoToStop” = Active**
* NS = YELLOW (based on current state).
* EW = RED (based on current state).
* After 3 ticks, **“Stop”** = Active.