

Traffic Lights Management System

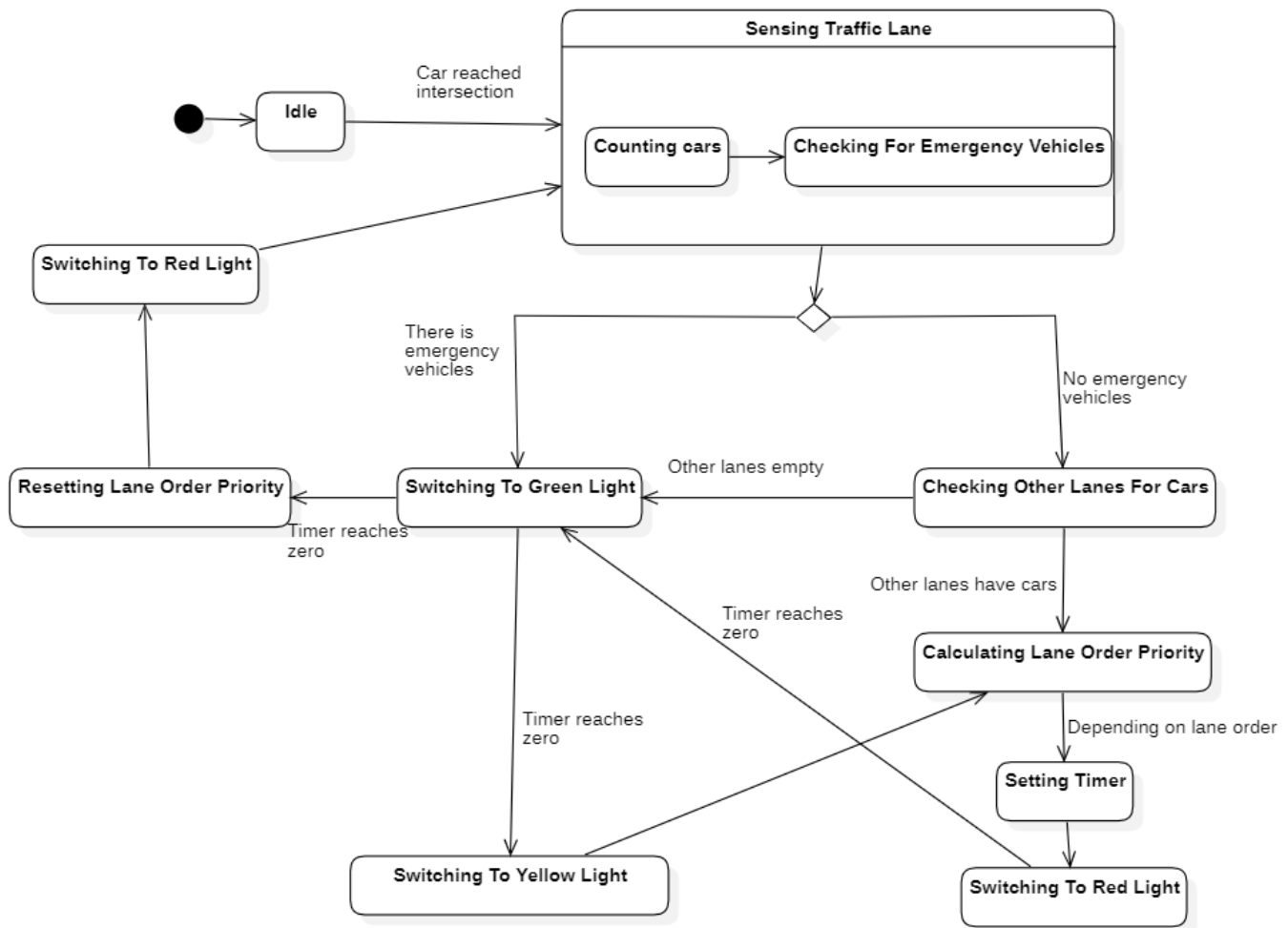


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State Machine Diagram, Control:

stm Controlling Lights State



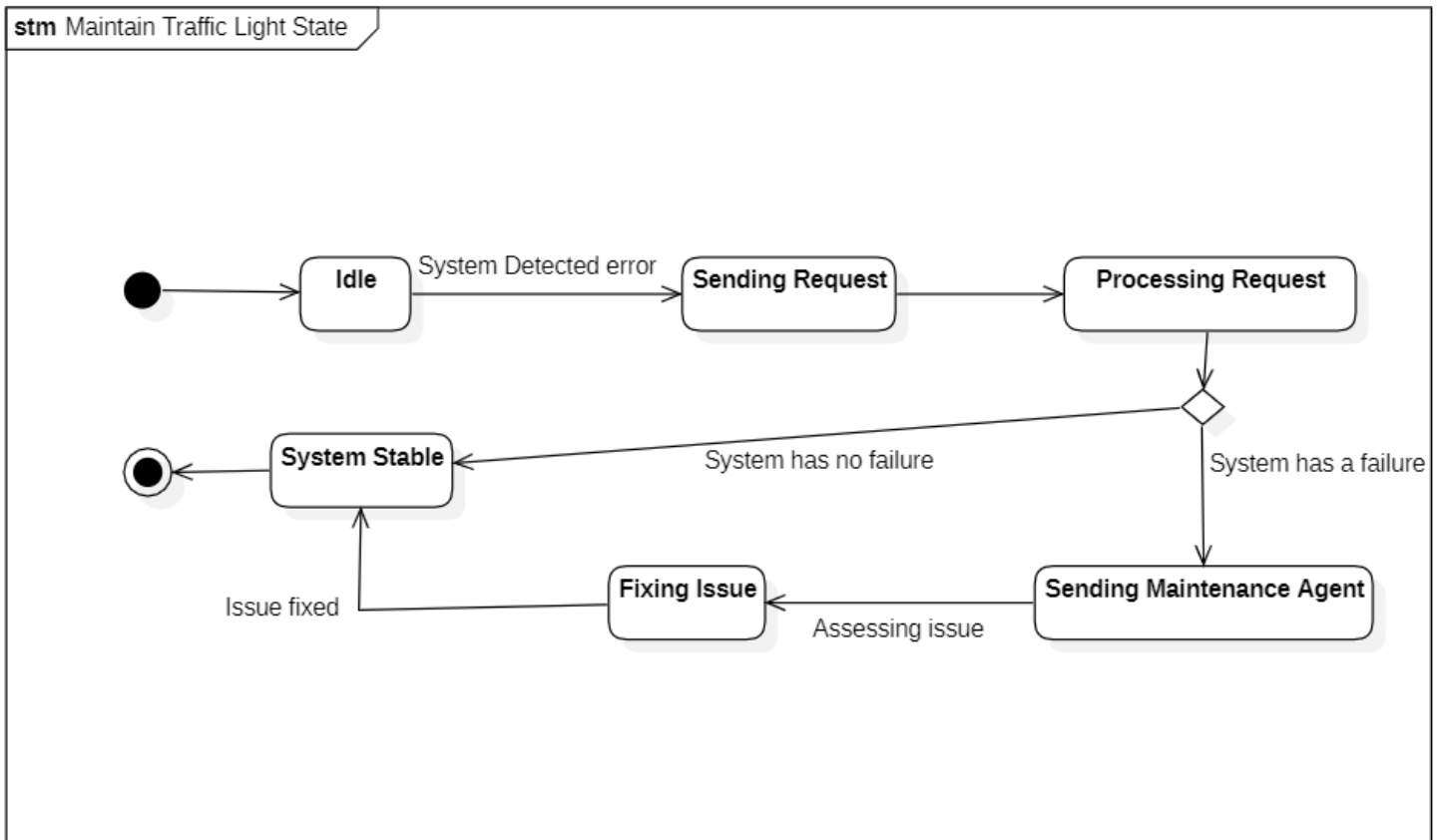
States:

- **Idle**
- **Sensing Traffic Lane**
- **Counting Cars**
- **Checking For Emergency Vehicles**
- **Checking Other Lanes For Cars**
- **Switching to Green Light**
- **Switching to Yellow Light**
- **Switching to Red Light**
- **Calculating Lane Order Priority**
- **Setting Timer**
- **Resetting Lane Order Priority**

Events/Triggers:

- Car reached intersection
- No emergency vehicles
- Other lanes have cars
- Depending on lane order
- timer reaches zero
- There is emergency vehicles

State Machine Diagram, Maintain:



States:

- Idle
- Sending Request
- Processing Request
- Sending Maintenance Agent
- Fixing issue
- System Stable

Events/Triggers:

- **System detected error**
- **System has a failure**
- **System has no failure**
- **Assessing issue**
- **Issue fixed**