

LAB 4. Requirements Elicitation

Use Cases

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Agenda

Elicitation of requirements for the Traffic Light System

- **development of use cases**
 - **general information**
 - actors
 - system states
 - use cases diagram
 - **use cases**
 - group development of use cases

Traffic Lights System

Actors

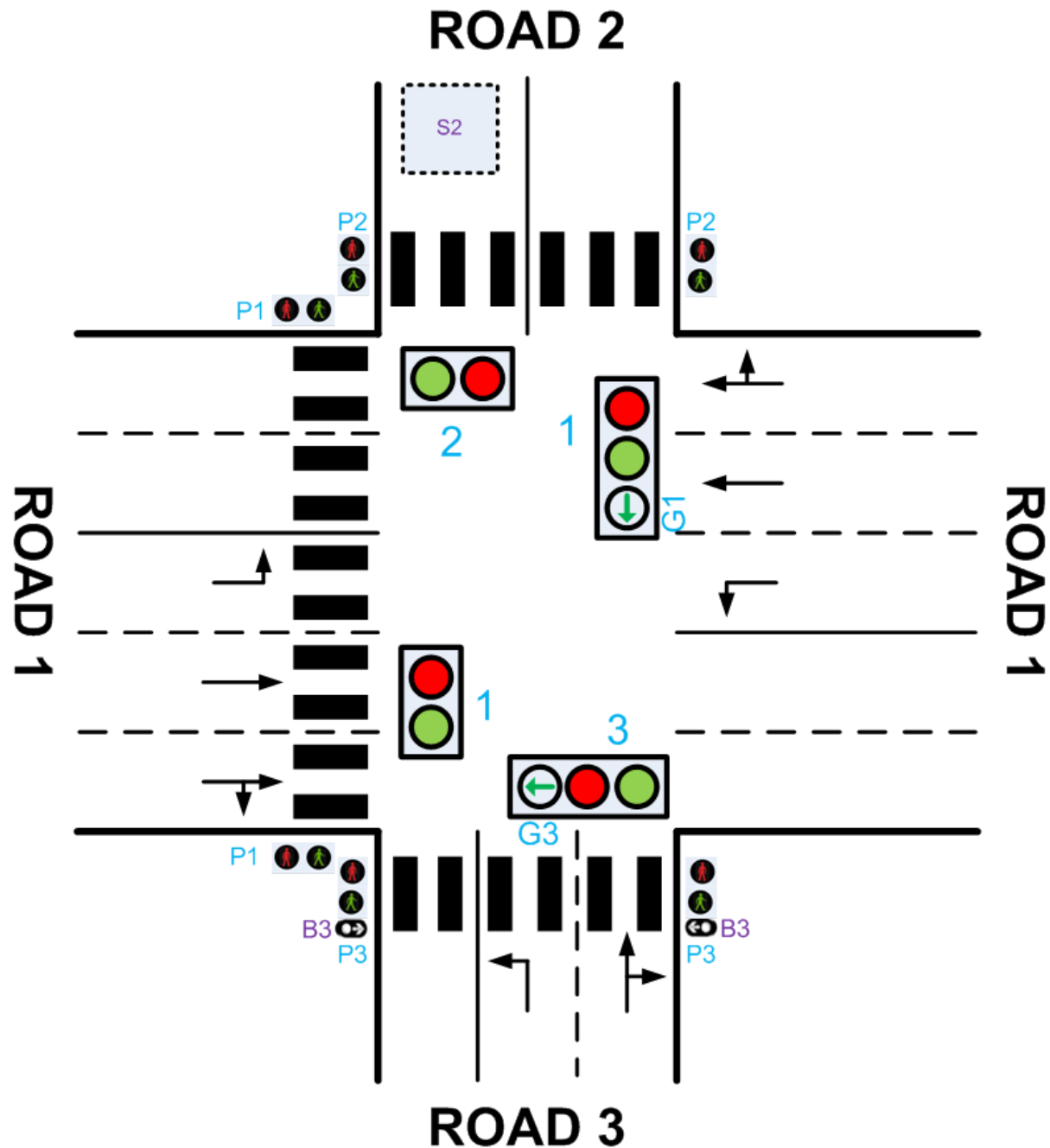
- ...

Inputs

- ...

System States

- default state
- state 1
- state 2
- ...



Traffic Lights System

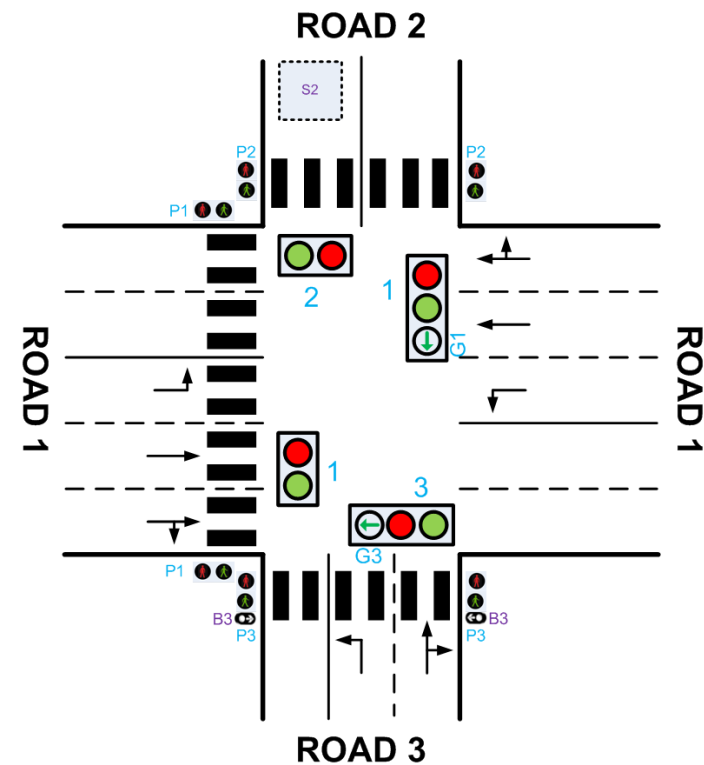
Actors

- Pedestrian, Car, Clock, Maintenance worker, Malfunction input, Timer T1, and Timer T2

System States

State	1	2	3	P1	P2	P3	G1	G3	T1	T2	Malfunction	Clock
$S_{Default}$	G	R	R	R	G	R	R	R	On	Off	Off	D
$S_{GreenG1}$	R	R	R	G	R	R	G	R	Off	On	Off	D
S_{Green3}	R	R	G	R	R	R	R	G	Off	On	Off	D
$S_{GreenP3}$	G	R	R	R	G	G	R	R	Off	On	Off	D
$S_{Green2and3}$	R	G	G	R	R	R	R	R	Off	On	Off	D
S_{Night}	BG	BR	BR	Off	Off	Off	Off	Off	Off	Off	Off	N
$S_{Emergency}$	BG	BR	BR	Off	Off	Off	Off	Off	Off	Off	On	D/N

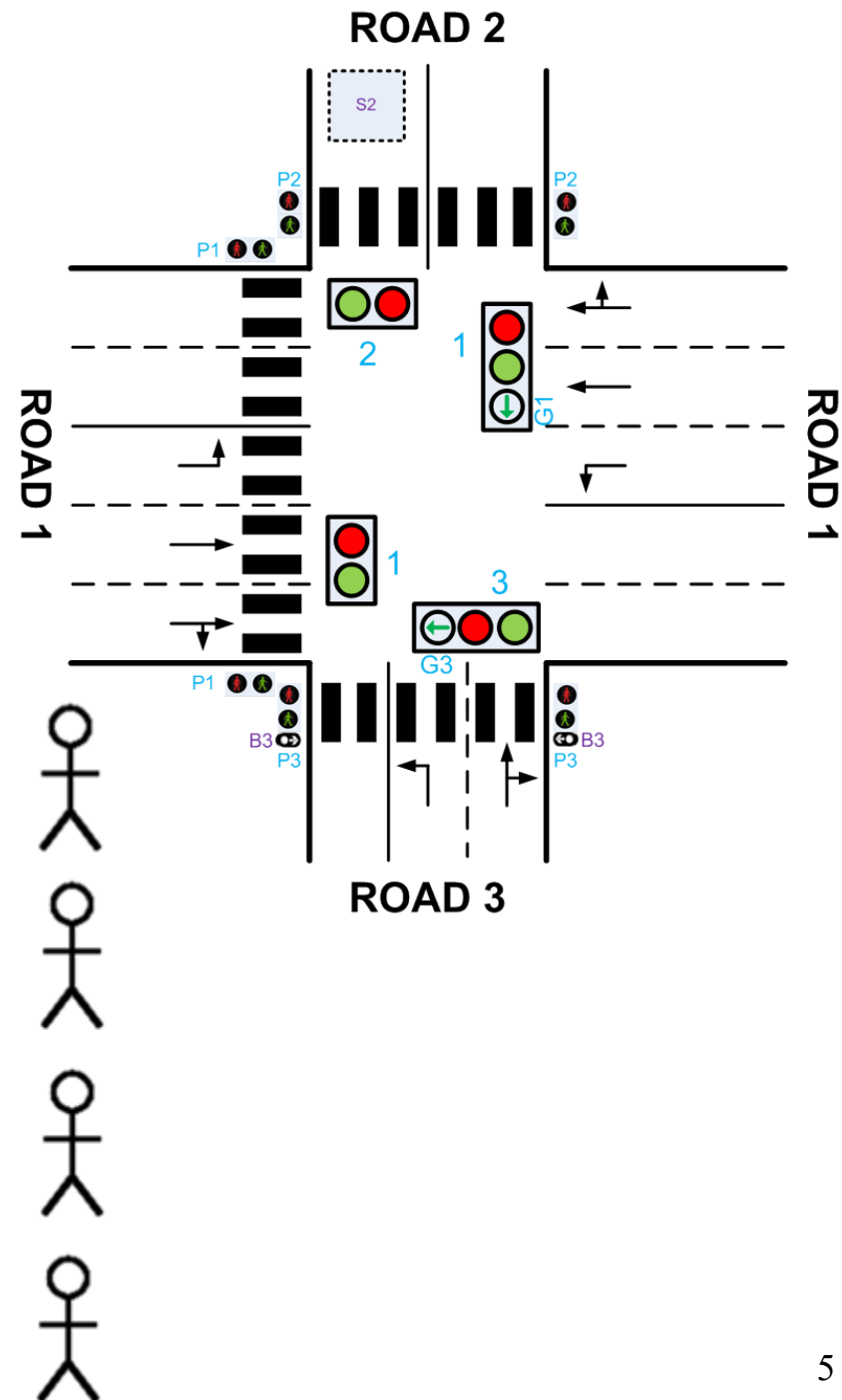
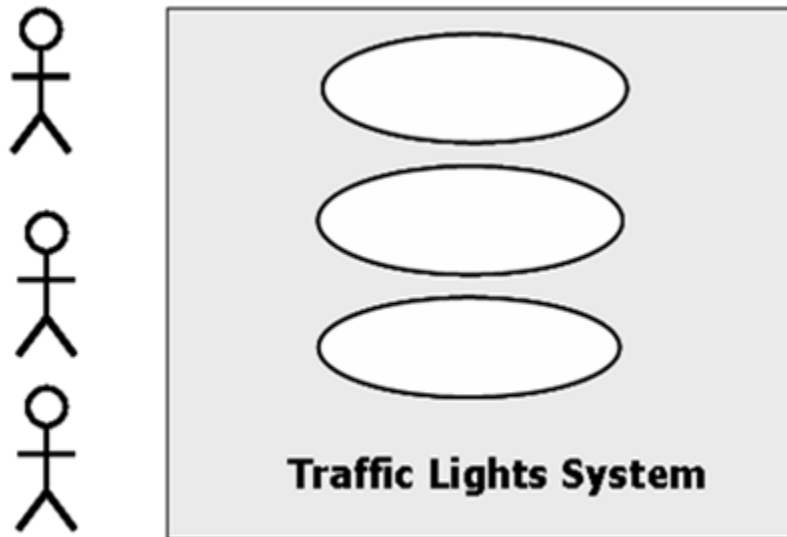
G represents green light, R represents red light, BG represents blinking green light, BR represents blinking red light, D represents day time, N represents night time.



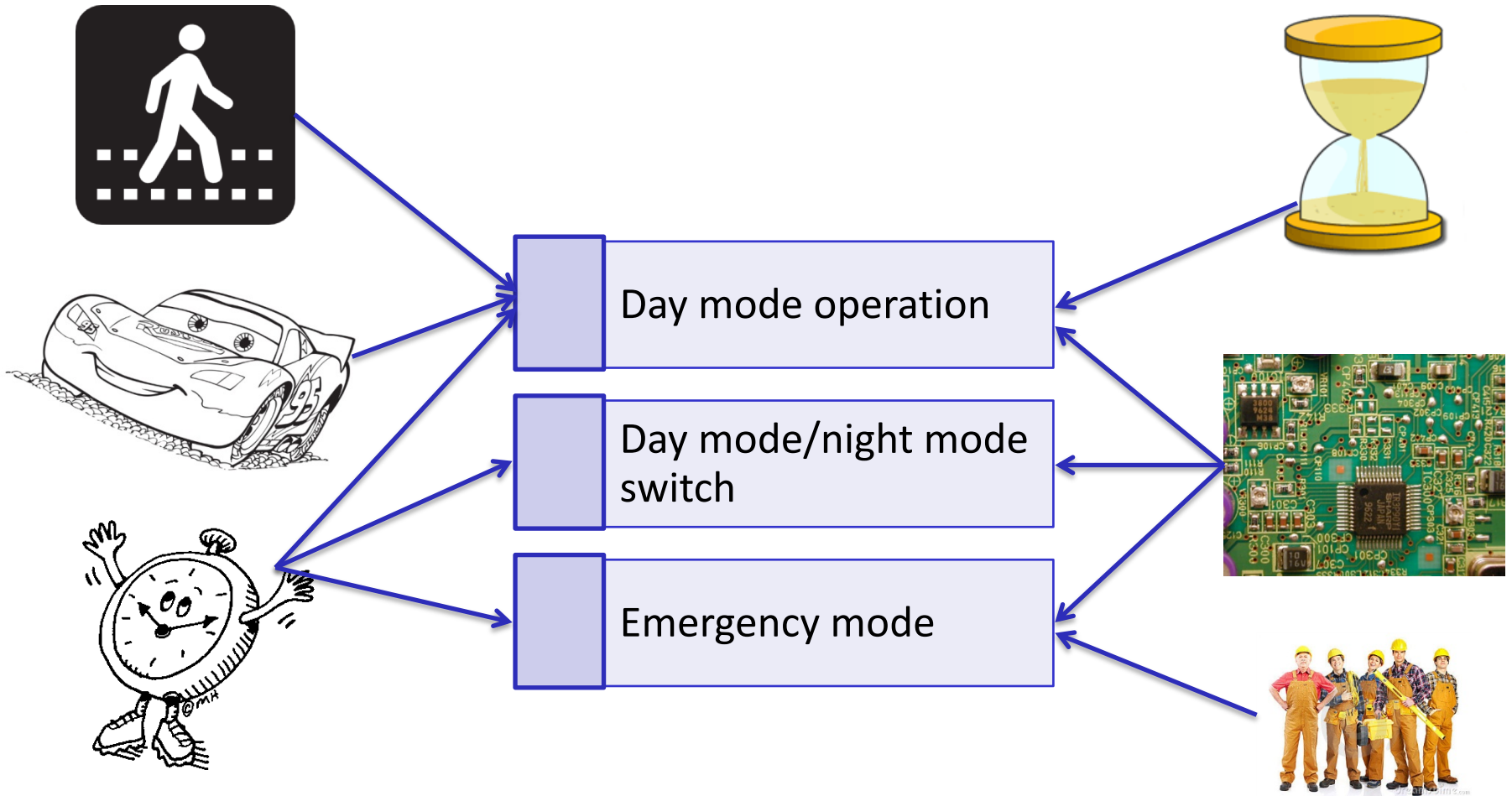
Traffic Lights System

Use Cases Diagram

- list all use cases and the corresponding actors

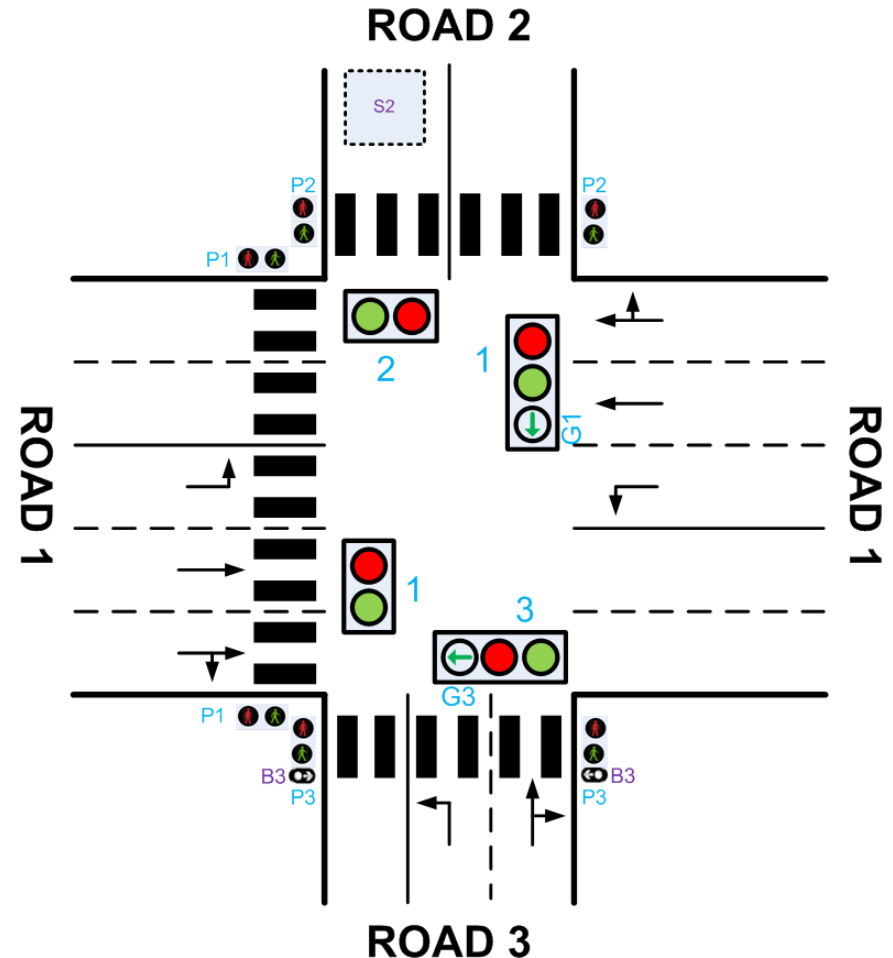


Traffic Lights System



Use case ID: UC-x	Use case name:
Description/Story: Story: Simple description of the use case Includes: UC-x name ... Frequency of Use: As specific as possible, e.g. daily Special Requirements: If there is any Assumption: If there is any Notes/Issues: If there is any	
Pre-condition: Precondition 1 ...	
Post-condition: Postcondition 1 ...	
Actor(s):	Package:
Status: Submitted/In Progress/...	Priority: High/Medium/Low
Created by:	Created Date:
Normal flow: User Action 1 System response 1 ...	
Alternative flow: User Action 1 System response 1 ...	
Exceptions: Exception 1.0.E.1 User Action 1 System response 1 ...	
Business Requirements: BR-xx Any business requirements associated ...	
Software Requirements: SR-xx Any software requirements associated ...	

Traffic Lights System



Use Cases for Traffic Light System

Each group will develop the use cases for the TLS

- Please use the use case template that has been given to you (check eclass)**
- You will enter the use cases to your TLS project in Google Docs**

Homework

Now, please use Vision Document Template to enter the information about the Traffic Light System

You **MUST enter:**

- 6- Key use Cases
- 7- Other product Requirements
- 8- Documentation Requirements
- 9- Glossary

Homework

Each group must submit Part 2 of the Vision Document for the TLS

- **This is the second part of your lab report #2**
- **After you enter all required information**
 - **Save the file on your hard disk as PDF file**
 - **upload the report in .pdf eclass by **Wednesday, October 17th, 6 pm MDT** for Monday lab and by **Sunday , October 19th, 6 pm MDT** for Friday lab**