**Group 7 transcript summary**

**Requirements and constraints**

* Resulting map need not be complex (2m55)
* Should accommodate at least 6 intersections (3m2)
* Of varying length (3m54)
* Only one kind of intersection (4m13)
* Accommodate left hand turn, some discussion about what this means (5m)
* Two kind of scenarios: static (no sensors) and dynamic (with sensors) (7m10)

**Context view**

how different worlds interact with the system (8m27). Other definition used later: the relationships, dependencies, and interactions between the system and the environment (12m5)

Stakeholders:

* Professor (8m47)
* Students (8m47)
* University (8m47)
  + Counterargument: University is the environment (12m17)
  + Its like an educational environment (12m33)
* Development team (10m55)
  + Counterargument: I seems the professor is going to develop it (11m)
  + Lets not make things too difficult (12m)
    - Counterargument: It isn’t mentioned in the text, but it matters when the system gets stuck (18m22)

System name: Traffic light system (13m59)

Dependencies:

* Professor:
  + Uses system to explain lectures about traffic problem (14m31)
  + Explain lecture better (14m40)
  + Can create and redefine scenarios
* Students:
* System:
  + Main responsibilities: static view and dynamic view (16m06)
  + Static and dynamic process, related to simulation (18m55)
  + Uses some external software package (19m28). Packages for the API module are only used in simulation, not designing (22m49)

**Information view**

Elaborate on the processes of the system (22m03)

System:

* Incoming data: input from the students (25m9)
* Output: a simulation (25m54), traffic light interaction (26m31), real-time simulation (26m55)
  + Counter argument: outcome is a real-time visualization (28m26). Call it a document or report (28m54)
* Static process has only one input, namely the initial input, but the dynamic view also has real time input (30m37)
* Before static and dynamic simulations, there is the map designing process (31m24)
* So first there is the map design process, and then an OR to two processes, either static or dynamic (31m55)
* There are also travel rules (32m30)
* And sensor information (32m42) only for dynamic (32m51)
* In the map design, the user creates the map, sets traffic timing schemes and views (34m04)
* The outsource package makes the map (35m27)

**Functional view**

Functionalities:

* Allow for roads of varying length (39m19)
* At least six intersections (39m19)
* Automatic constraints, for instance to check if a crossing is consistent (40m36). Call it checking light behaviour (41m16). Its going to be activated after you design the map, before the simulation process (41m41)
* Density checker that checks whether there aren’t too many cars on the road (48m02)

Constraints of the system:

* Four way (44m13)
* Traffic lights at every intersection (44m17)
* Combination of signals cannot lead to a crash (44m36)
  + Counter argument: That’s not really a rule (44m44)
  + It is a rule (44m47). Ok (44m54)
* At every state, also without user input, you have to know the state of the lights (46m6)

**Model**

Distinguish between global and specific functionalities (52m31). These are two different modules as well (52m33)

Global functionalities (52m41)

* database, connections and stuff.
* Density checker (56m39)
* Checking light behaviour (57m01)
* Metric flux, using outsource software (58m42)

Specific functionalities (52m41)

* map design (designing the road, intersections, signals). Constraint: length of the roads (1h5m11)
* realtime simulations: set the flux, when it comes and goes, how many cars per hour/minute.
* Another module: real-time simulation.
* Rule management: six intersections, maximum of cars (1h2m25), minimum/maximum speed (1h2m36)

Import and export module (55m19).

* Counter-argument: should an information flow (55m44)