

Design Progress Report 2

Team 14

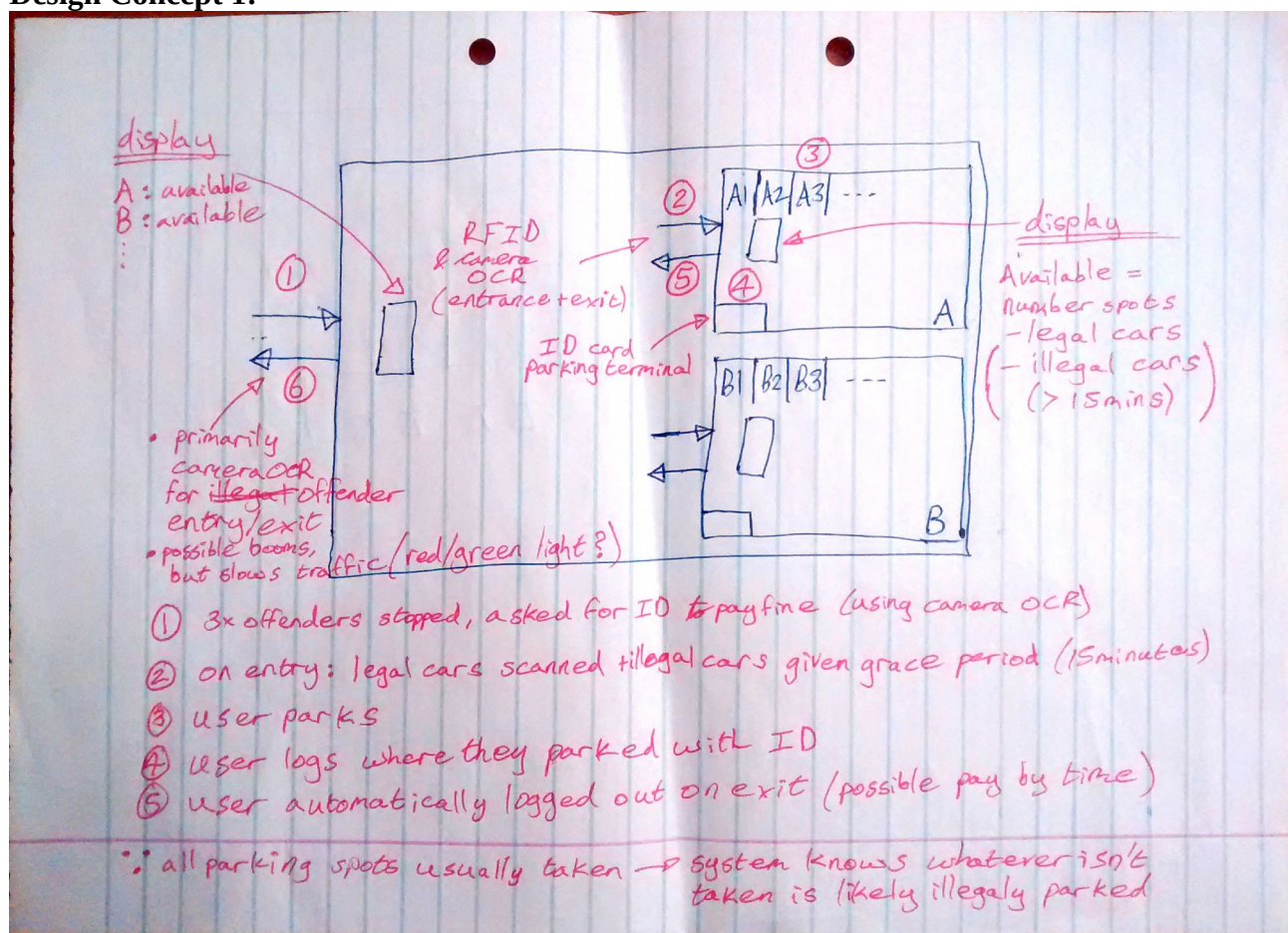
GVNJAR002 (Electrical) Govender, Jarushen
KHBISA001 (Mech) Khobo, Isaac Lebogang
STVATA001 (ECE) Stavrev, Nasko
SCHBEN011 (Mech) Scholtz, Benjamin

(All present.)

Meeting Details

The meeting was arranged via our Whatsapp group. We arranged to meet in Blue Lab at 8AM on Thursday the 3rd of March where we confirmed our two design ideas and came up with a rough system diagram for our primary design. We also decided upon the headings/sections for our report.

Design Concept 1:



Possibility: No RFID tag for each car – rather just OCR connection between number plate and student/staff ID.

Design Concept 2:

Passive RFID for each car, RFID coil pads on each parking spot.

Sections of Report:

#Project Proposal and Task Clarification

Background

Design Context

Specifications

-Stakeholders

-Scope of Work (SOW)

-Phases of Work

(Programme and decision points?)

Design Assessment

#Design Concept

Design One

-diagrams

-main components of complete system

-benefits in terms of meeting requirements

-evaluation

--cost (implementation, maintenance, energy consumption)

--strong/weak points

--weighted selection

-recommendation

-Risk assesment

--external causes (weather, vehicle impact, human interference)

--risk of failure during intended life

--mitigation (steps you will take to reduce the risk)

Design Two

#Embodiment Design

System

-Systems Diagram

-Analysis

-Software

-Mechanical Design (Technical drawings)

-Electrical Design (Circuit diagrams)

--Power Budget/analysis

-Assumptions

--Vailidity

-Failure modes

--Probabilities

--Consequences

--Mitigation

-System lifetime, limits

-Component / sub-system worst case calculation

Next step:

Allocation of tasks.