IOT – FROM CONCEPT TO PRODUCTION

by

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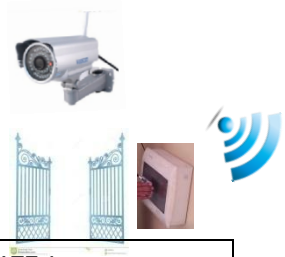
RFIC TECHNOLOGIES

SMART WIRELESS PRODUCT
CAMERA + RFID + GARUDSMS

CLOUD COMPUTING

BIG DATA



GATE-1

RFID READER +
WIRELESS CAMERA

GATE-4

RFID READER +
WIRELESS CAMERA

SCHOOL

PRINCIPAL'S
OFICE

GATE-2

RFID READER +
WIRELESS CAMERA

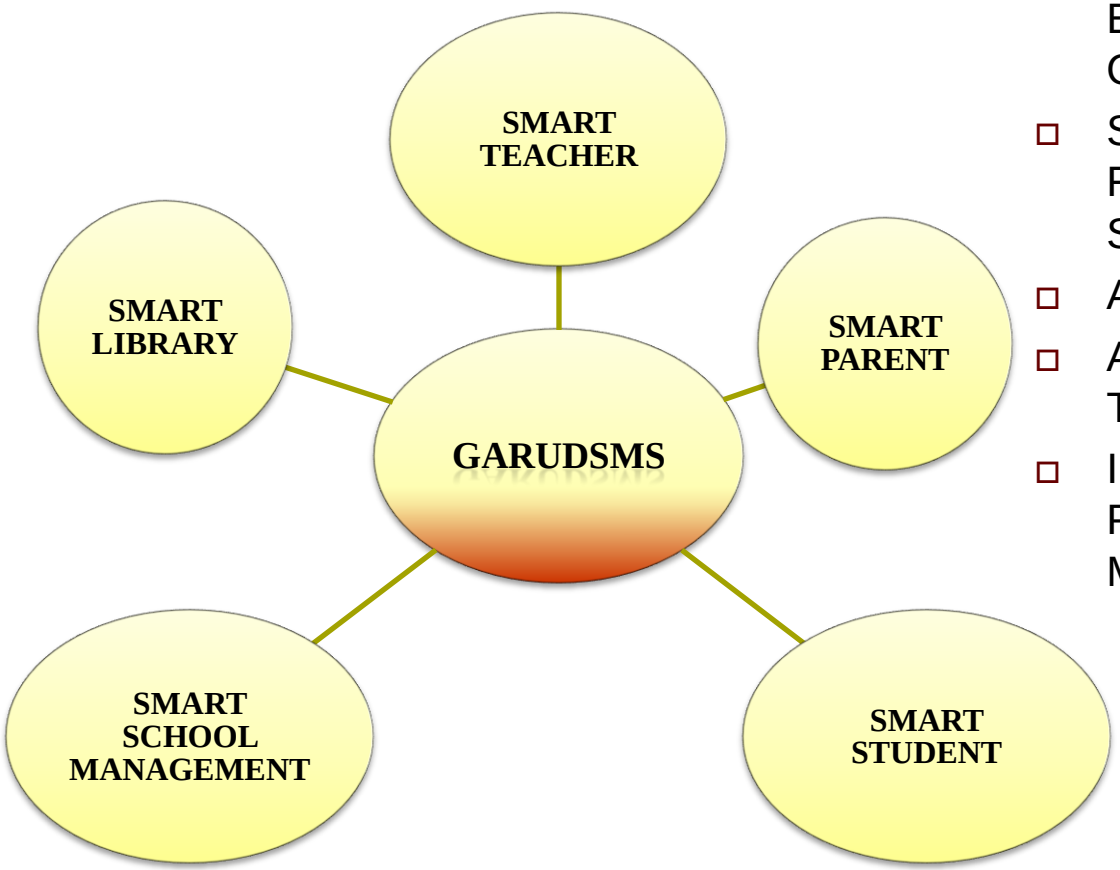
GATE-3

RFID READER +
WIRELESS CAMERA

USERS

OUTSIDE SCHOOL

GARUDSMS-MAKE EVERYBODY SMART FAST AND EFFICIENT



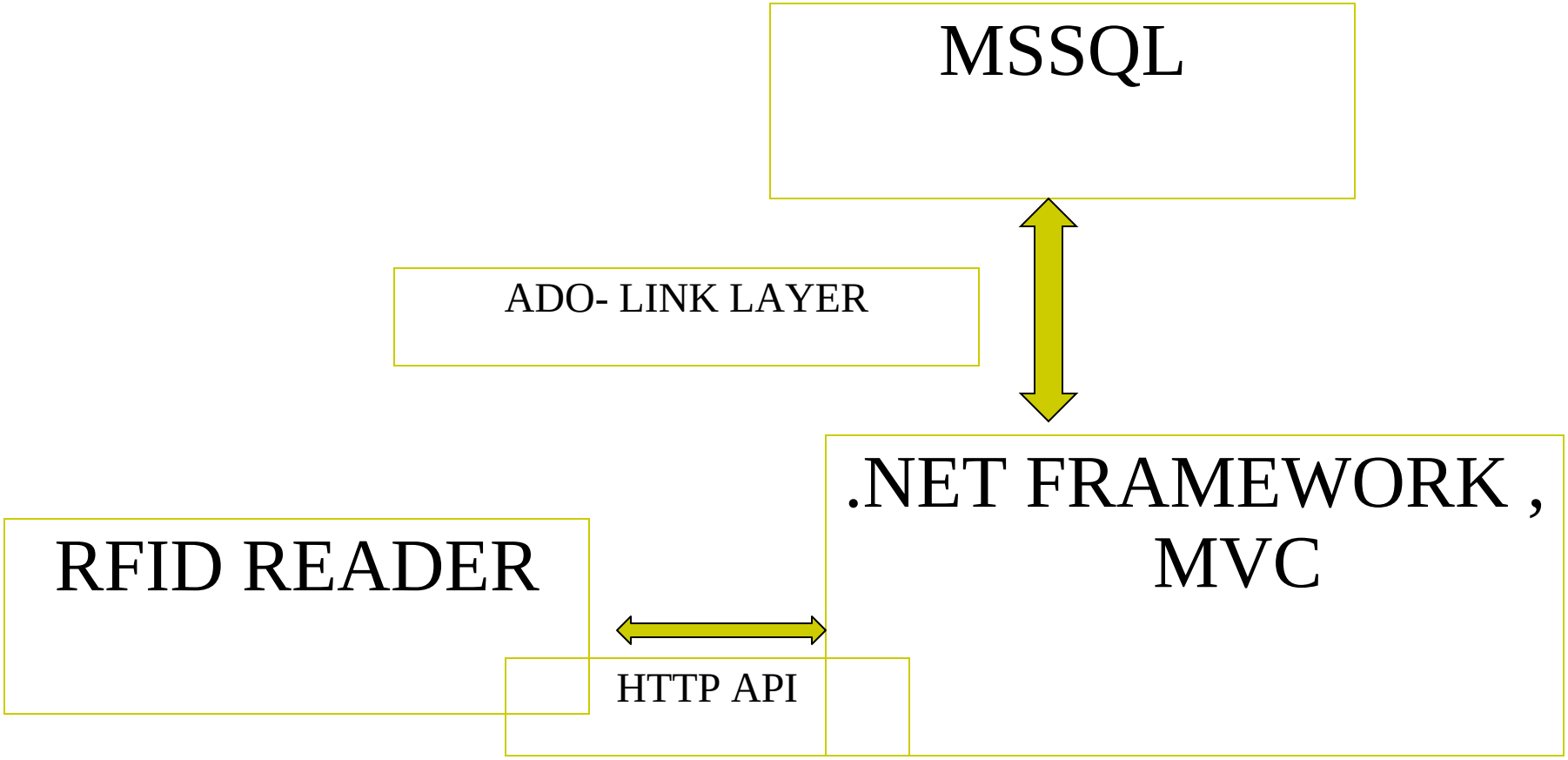
- PARENTS WILL GET EMAIL/SMS ON ENTRY/EXIT OF STUDENT
- STUDENTS WILL USE ALL FACILITIES THROUGH THIS SMART CARD
- AUTOMATIC ATTENADNCE
- AUTOMATIC BOOK TRANSACTION
- INFORM PARENTS ABOUT PAYMENT, ASSIGNMENT, MEETINGS

RFID SYSTEM

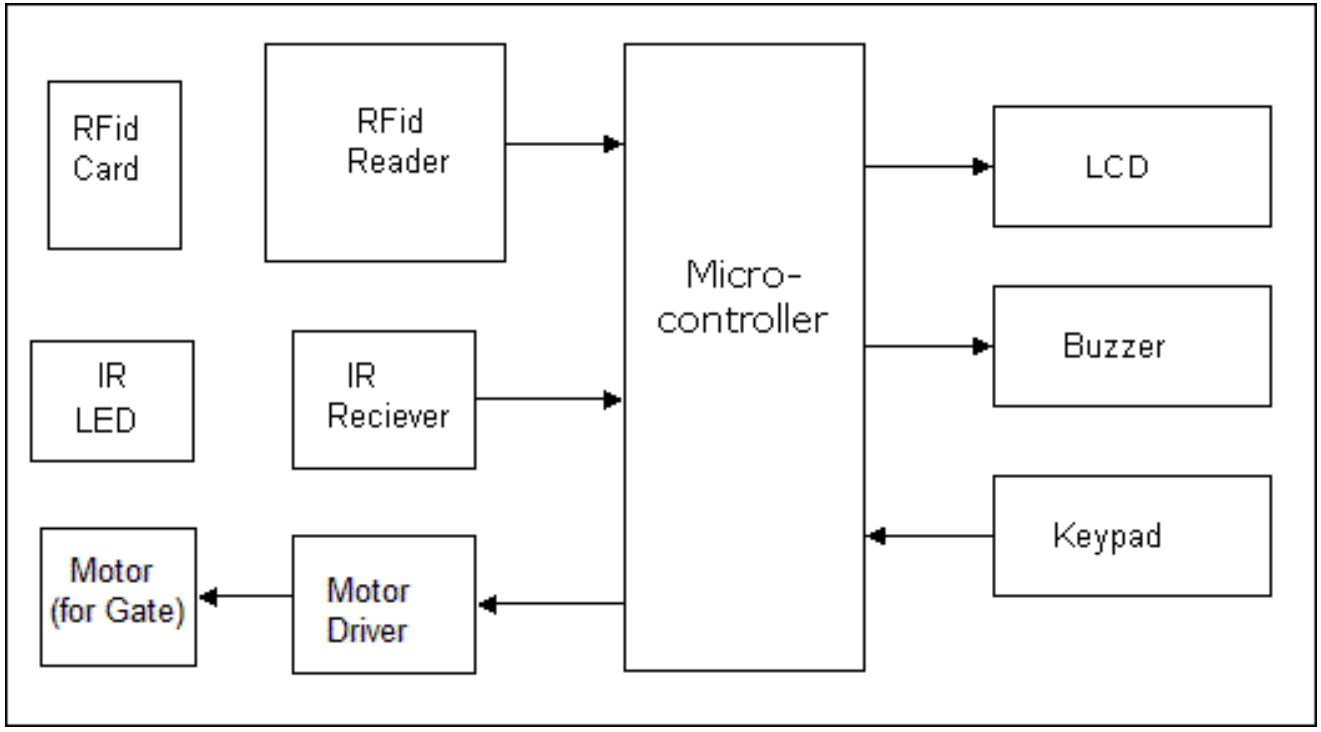
- RFID READER
  - MICROCONTROLLER + READER
- RFID CARDS
- WEB SERVER- CLOUD PLATFORM
  - MSSQL DATA BASE-MVC-.NET
  - ADO CONNECTION STRING
  - HTTP API PUSH PULL DATA
- EMAIL AND SMS SERVICE

RFIC TECHNOLOGIES

THE ARCHITECTURE

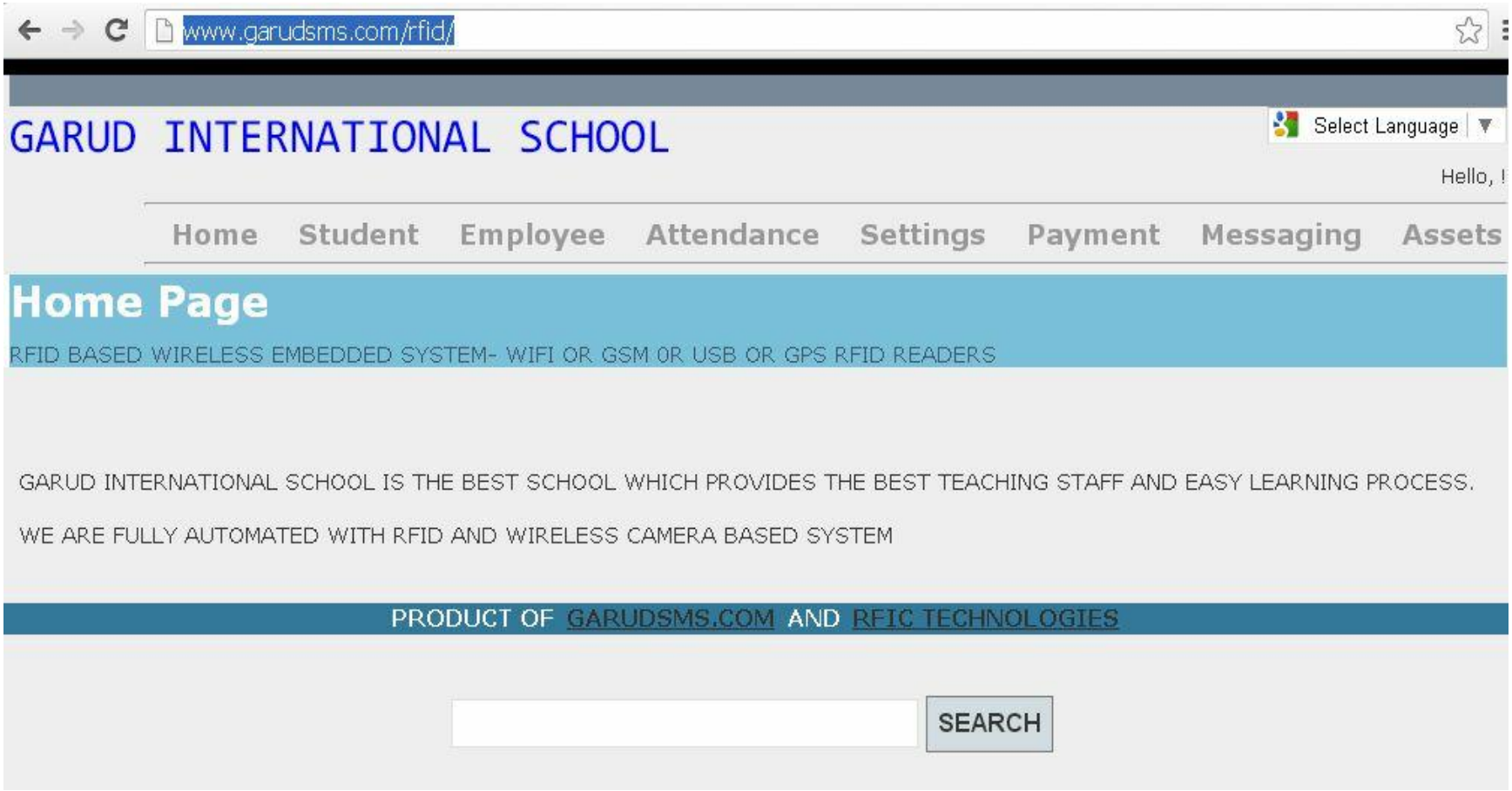


RFID READER

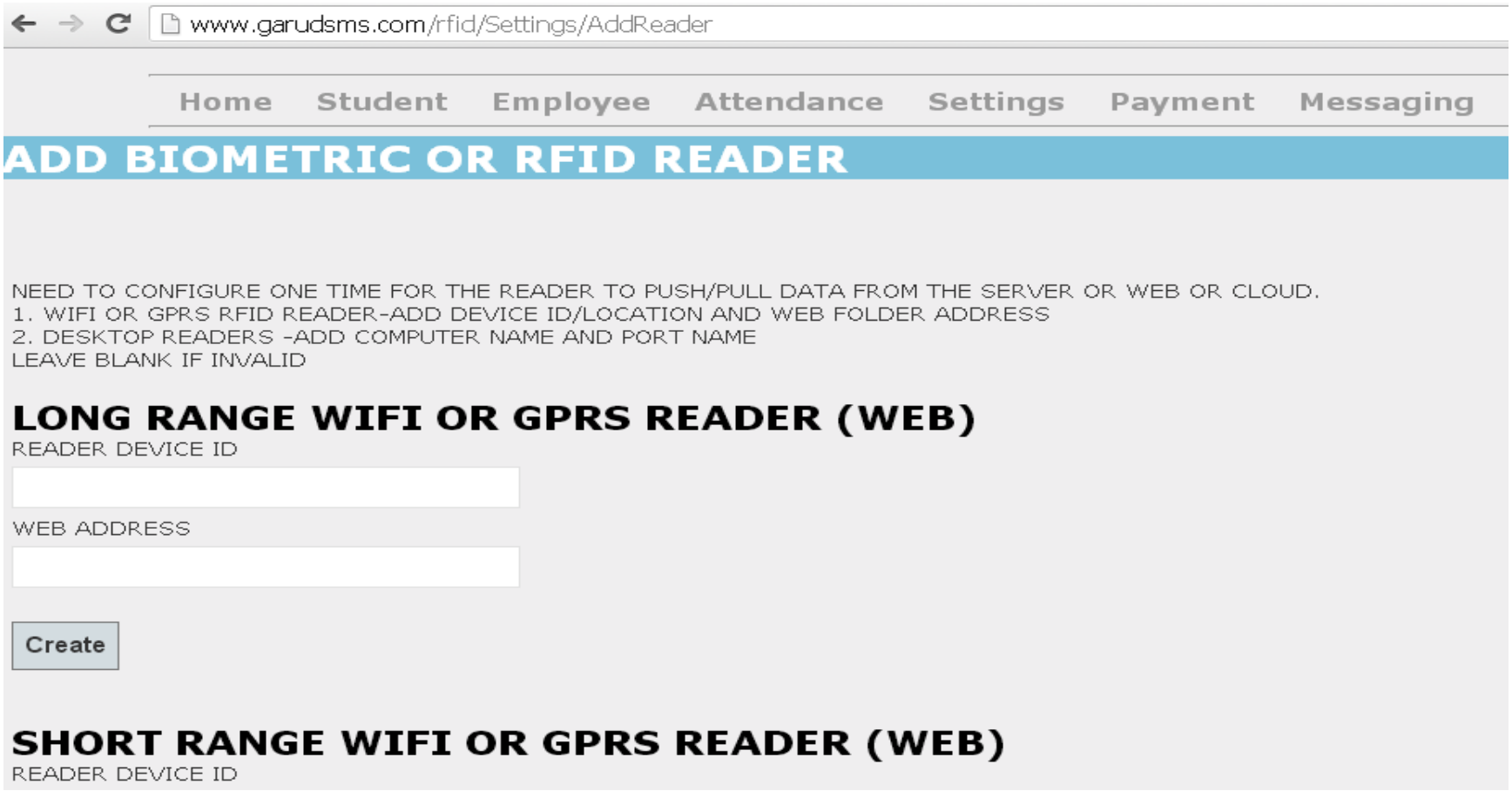

RFid Card
RFid Reader
Micro-controller
LCD
Buzzer
Keypad
IR LED
IR Reciever
Motor (for Gate)
Motor Driver

THE READERS

www.garudsms.com

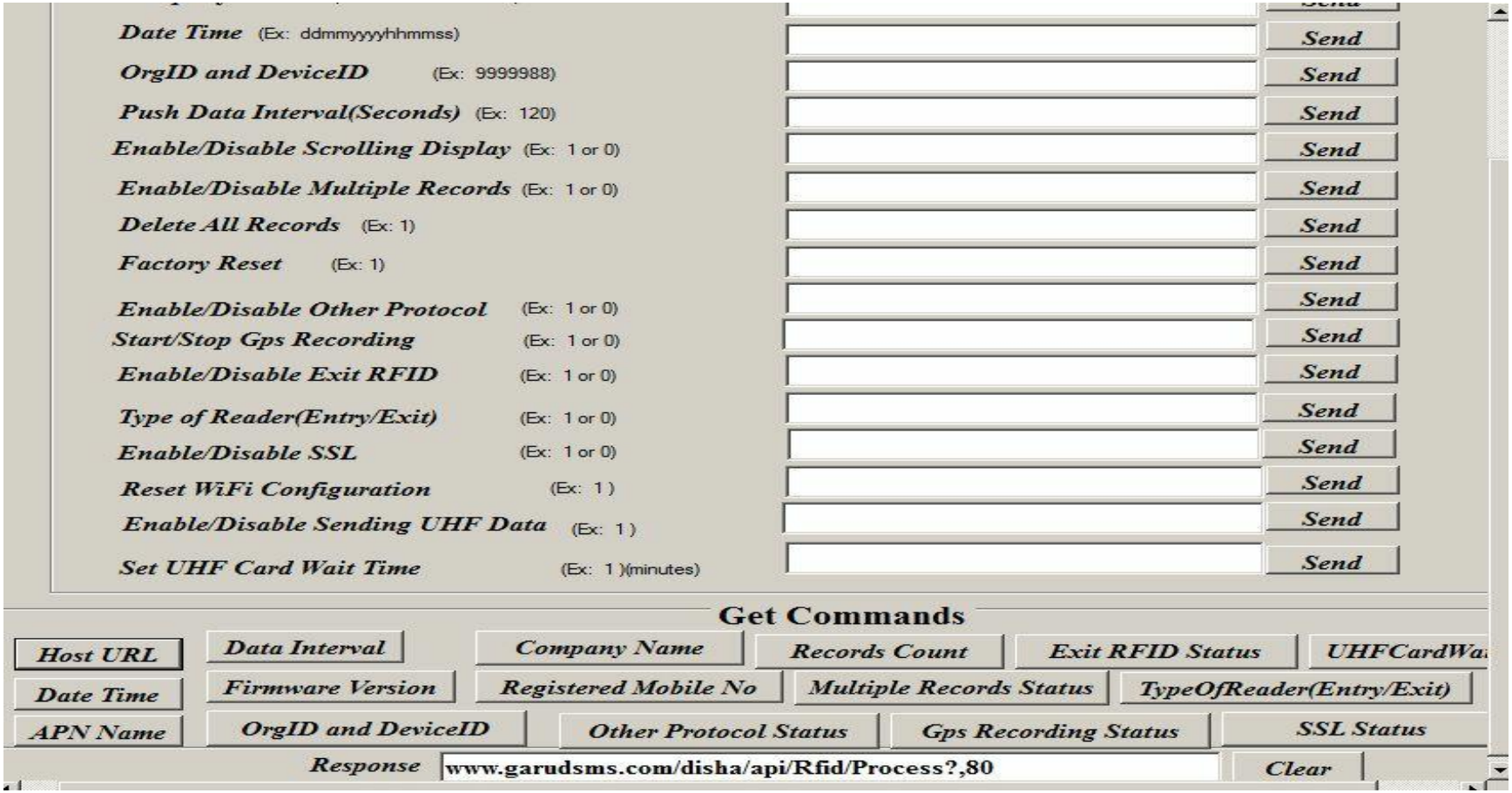


Push or pull data from server configuration



RFIC TECHNOLOGIES

Reader configuration



IOT –BASIC STRUCTURE

- EMBEDDED SYSTEM CONNECTED TO INTERNET

1. SENSORS SEND DATA TO SERVER
2. DATA WILL BE STORED IN THE SERVER
3. PROCESSING OF THE DATA AND ACTION

What is an Embedded System?

Embedded systems (ES) = **information processing systems embedded into a larger product**

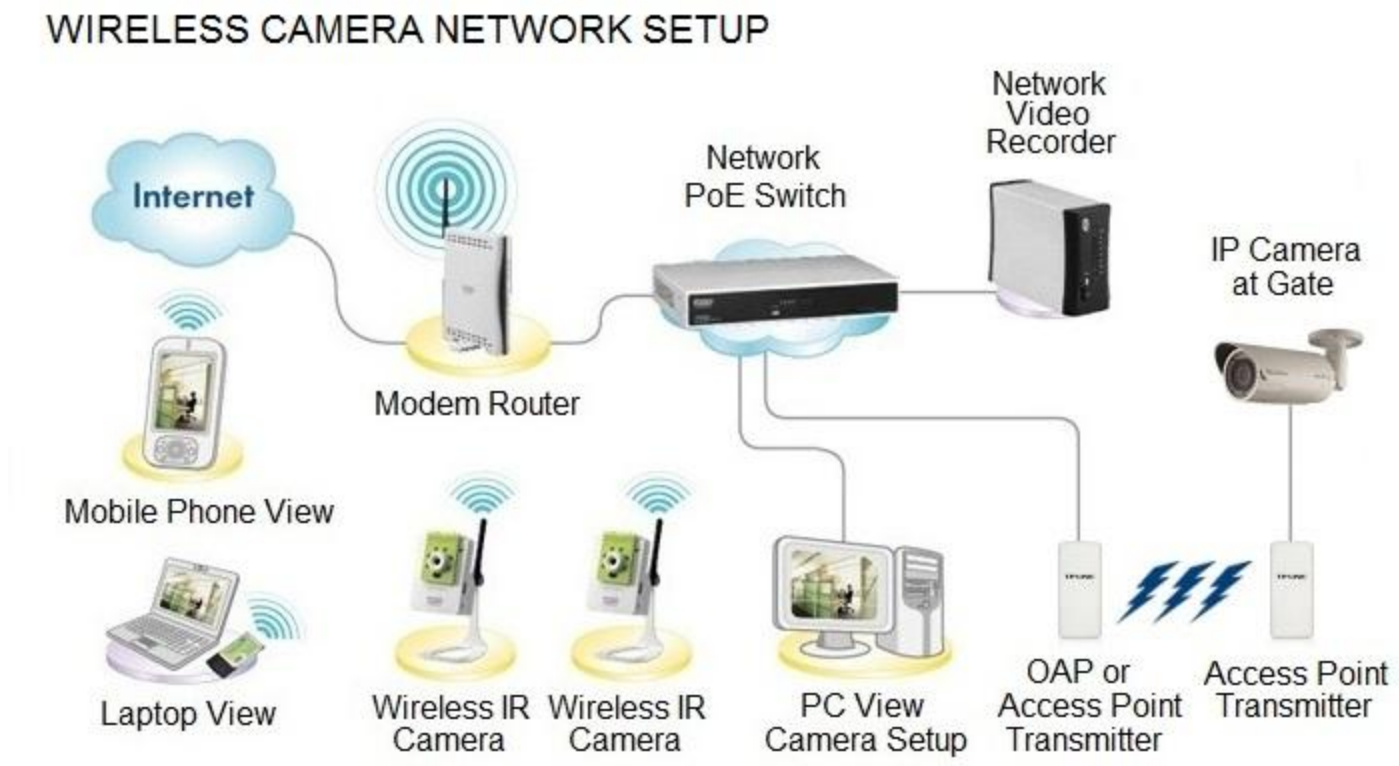
Examples:

Main reason for buying is **not** information processing

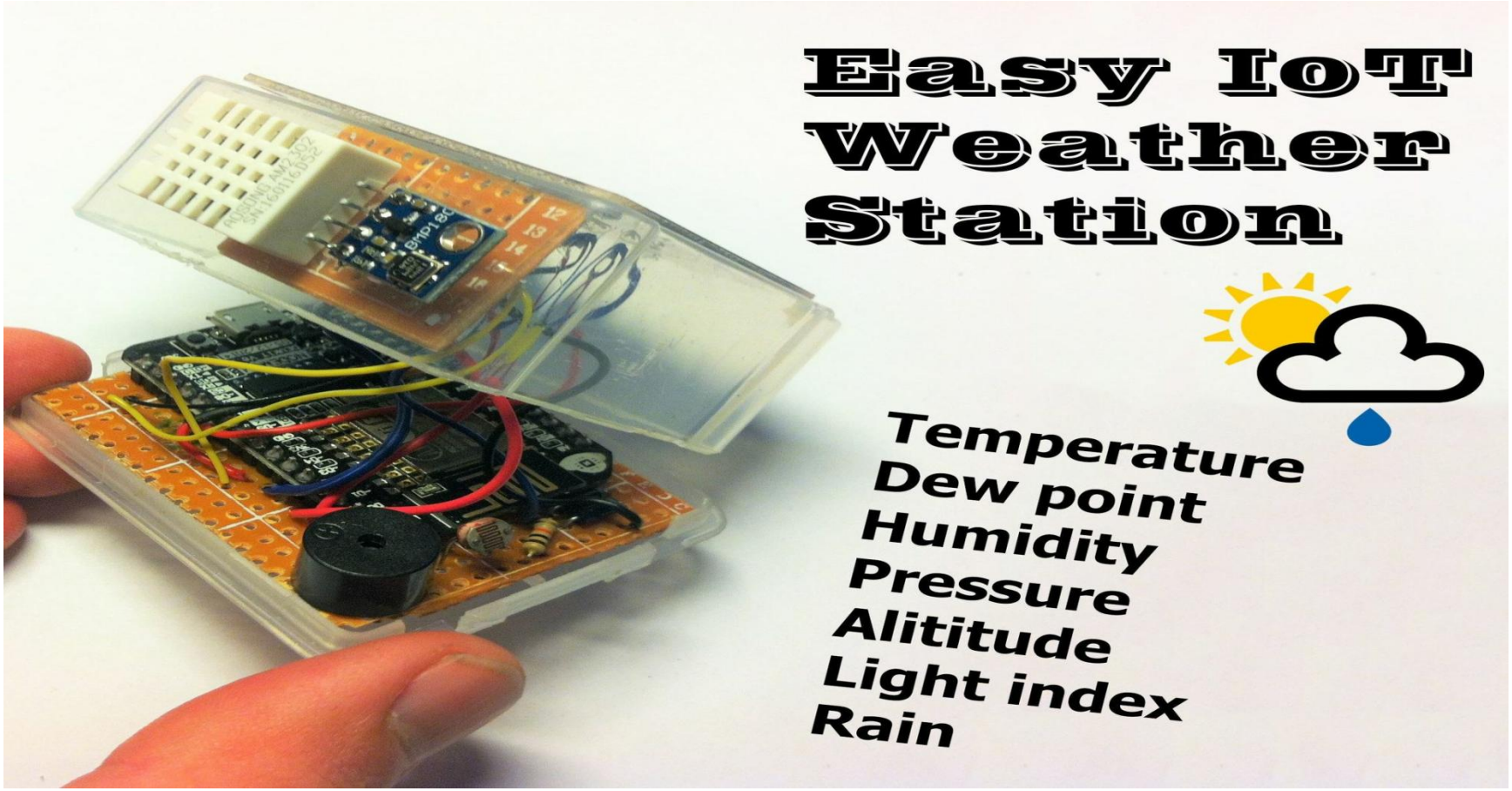
INTERESTING PROJECTS

- GPS TRACKING SYSTEMS

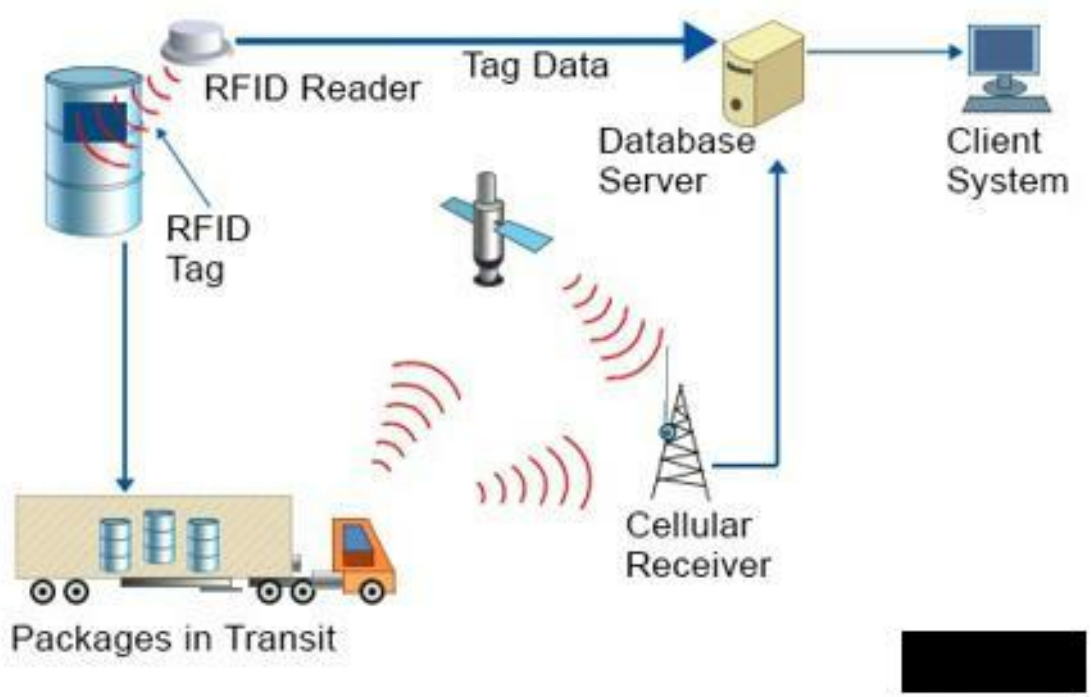
WIRELESS CAMERA



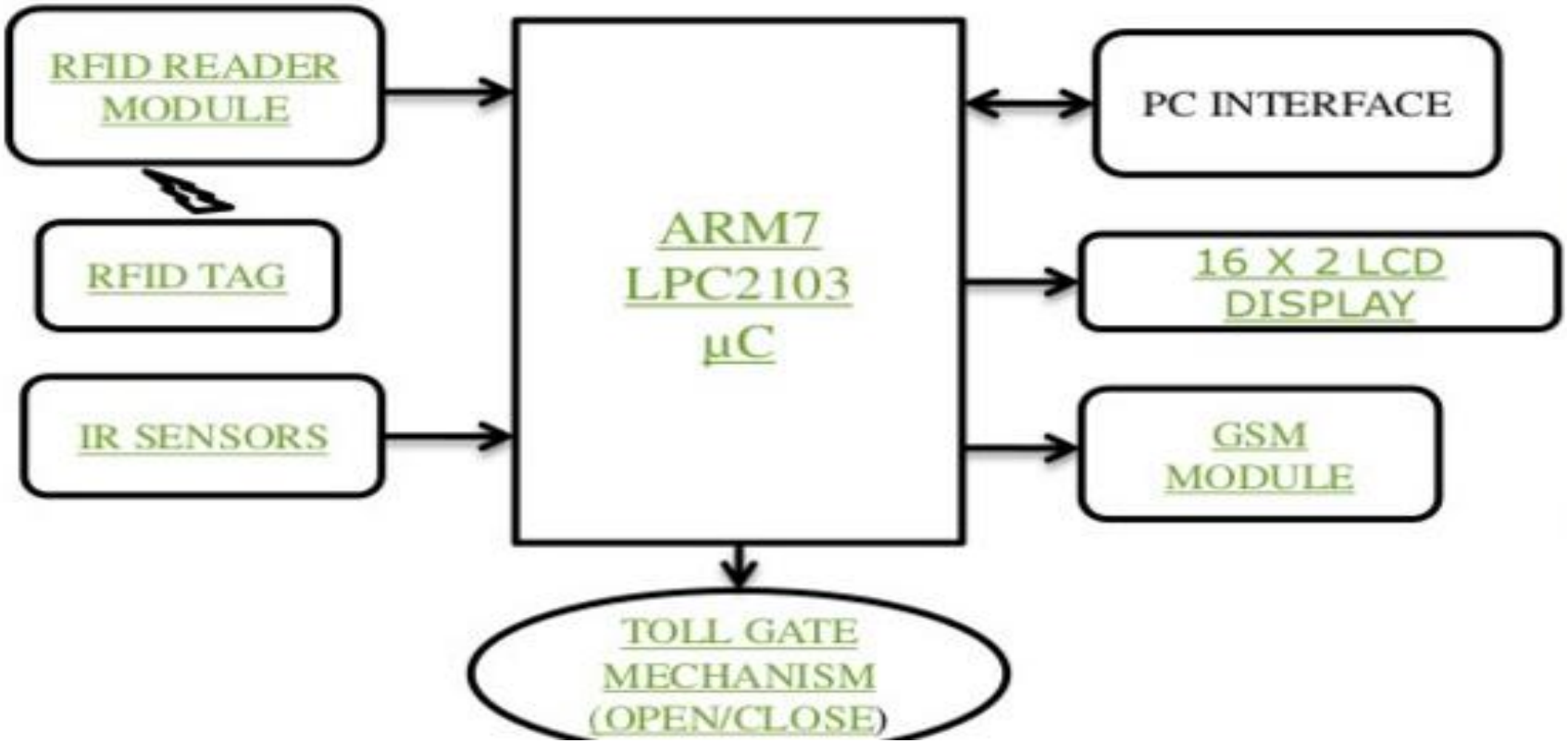
HOME WEATHER STATION



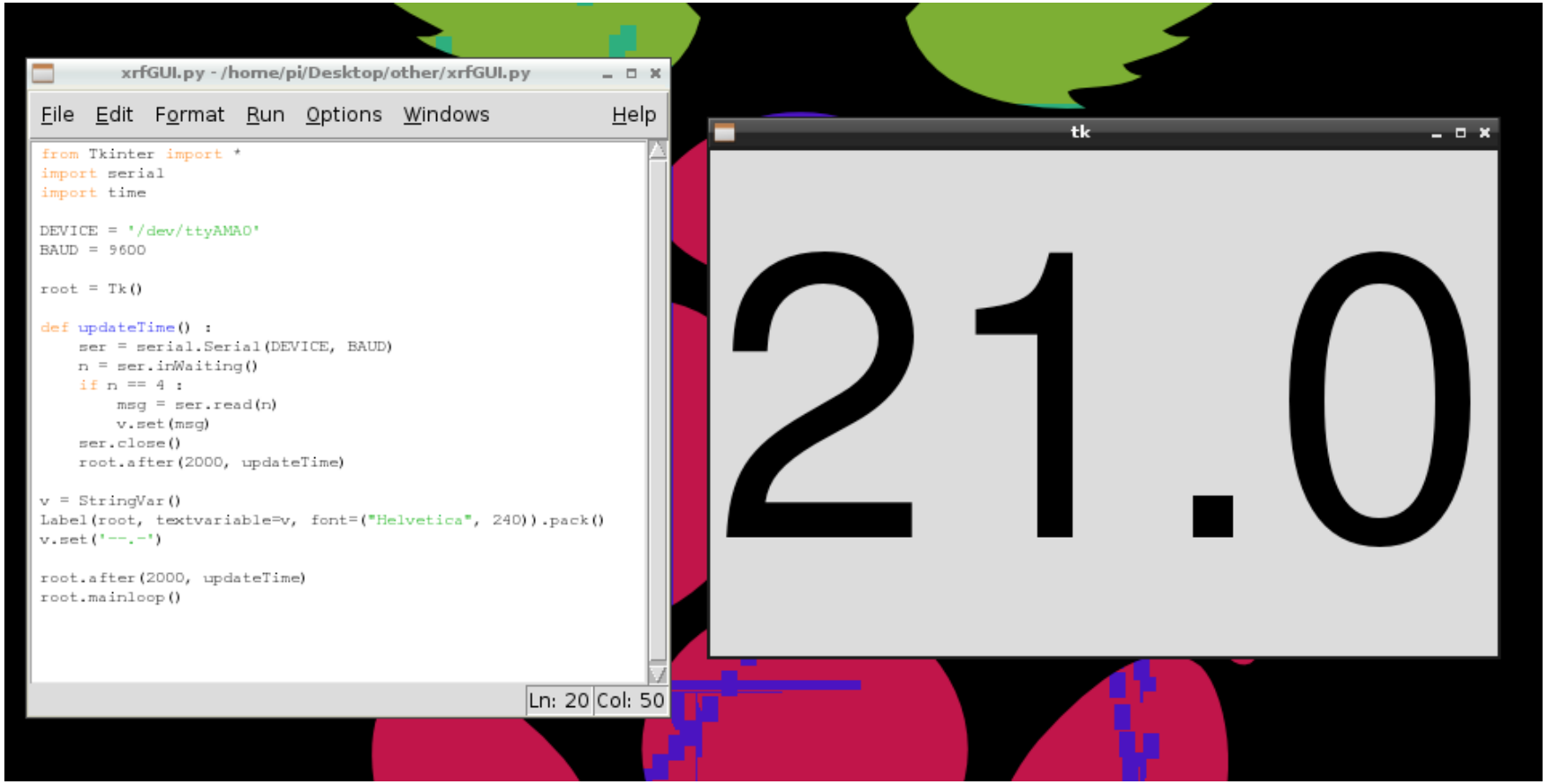
RFID TRACKER



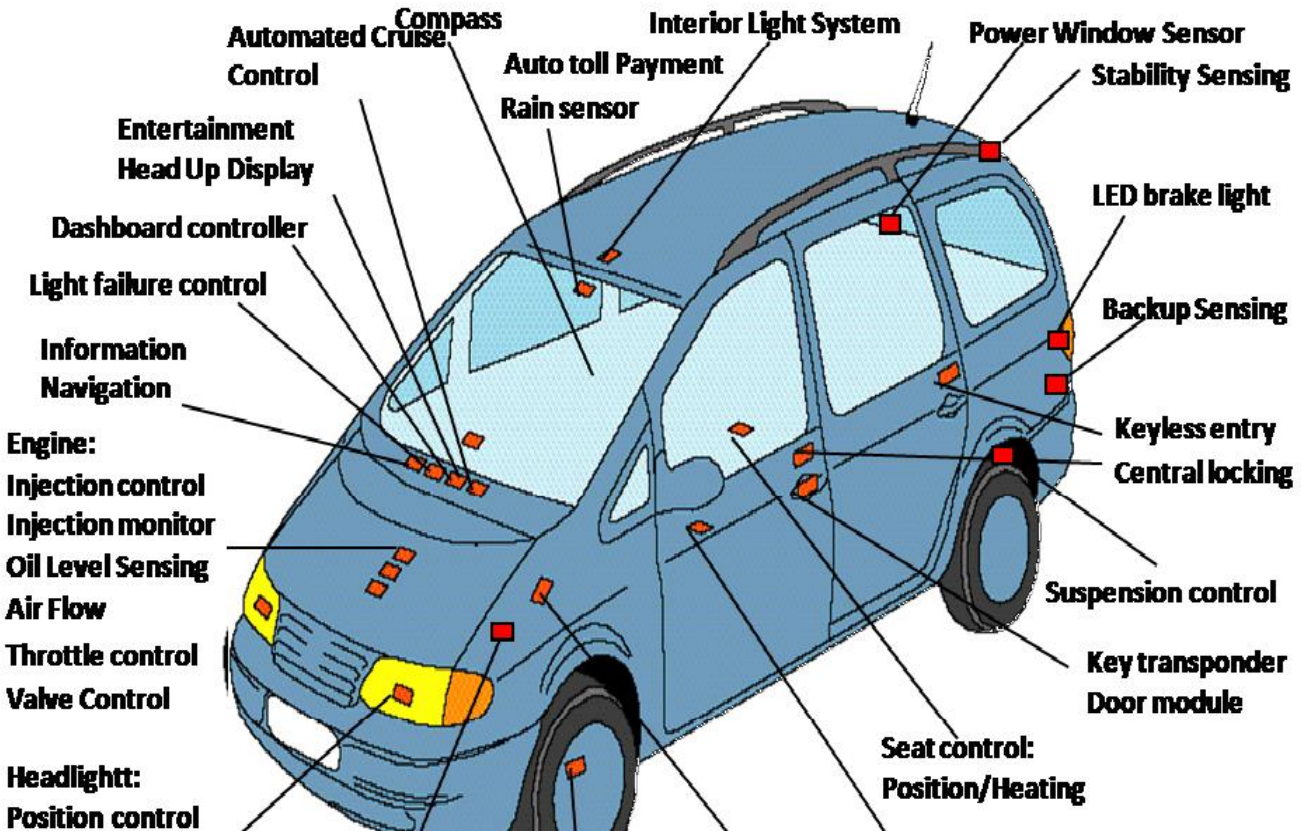
RFID READER


RFID READER MODULE
RFID TAG
IR SENSORS
ARM7 LPC2103 µC
PC INTERFACE
16 X 2 LCD DISPLAY
GSM MODULE
TOLL GATE MECHANISM (OPEN/CLOSE)

RASPBERRY TEMP MONITOR



SMART CAR


Compass
Automated Cruise Control
Interior Light System
Power Window Sensor
Auto toll Payment
Stability Sensing
Rain sensor
Entertainment
Head Up Display
LED brake light
Dashboard controller
Light failure control
Backup Sensing
Information
Navigation
Keyless entry
Engine:
Central locking
Injection control
Injection monitor
Oil Level Sensing
Suspension control
Air Flow
Throttle control
Key transponder
Door module
Valve Control
Seat control:
Position/Heating
Headlightt:
Position control

THANKS