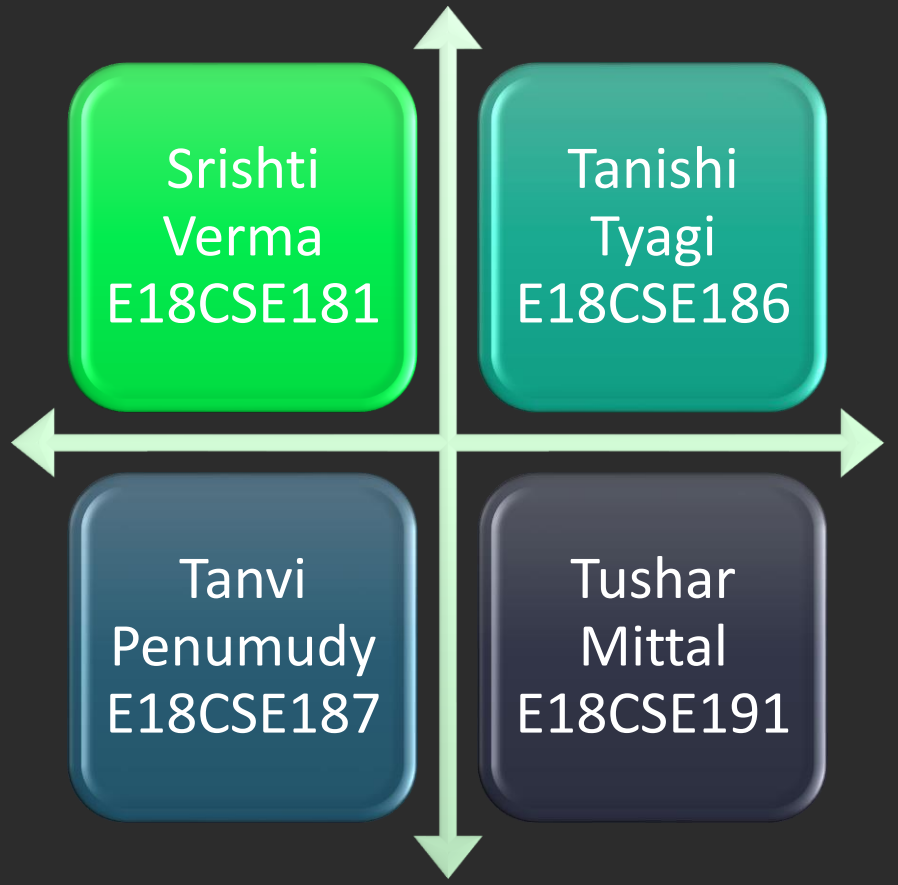
Dynamic Developers

INTELLIGENT PARKING SYSTEM

OUR TEAM


Srishti Verma E18CSE181
Tanishi Tyagi E18CSE186
Tanvi Penumudy E18CSE187
Tushar Mittal E18CSE191

NEED STATEMENT

Our startup is assigned a contract by Reliance to design an intelligent parking. It will indicate to the driver how many parking slots available, if slots available then auto-gate open/close while entry, auto gate open/close while exit. If there are no slots, the driver will be informed and gates will not open. If someone is parking more than a certain time, it will send sms to the driver.

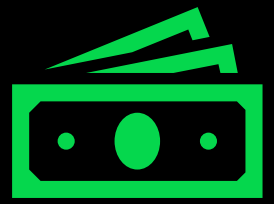
PROBLEM STATEMENT

It is very difficult to find a free parking space during the day time in all the streets close to the city center. Worse enough some of the vehicles are parked on a lot for more than the time rule set to be followed prior to parking. Thus we will design an intelligent parking system by using IR sensor that will be able to keep a record of the number of cars parked inside of a parking area. If slots are available the auto gate will open/close. If there are no slots, the driver will be informed and gates will not open. We will use Arduino to link the sensors to the database and thus allow the barricade to open/close. Everything will be done within a budget of INR 3000

CRITERIA


Automation of the existing parking systems to reduce the staffing requirements for traffic control within the facility
Guiding the driver to find the parking space in a more efficient and convenient way
Parking lot statistics and report generation made easy for parking administration
Provide a long term parking solution for users and operators
Real time parking status update
Notification of overtime parking

CONSTRAINTS



Budget confined within INR 3000

All technical expertise should be covered

Completing it within the stipulated time

BLACK BOX


Power supply
IR sensors
Arduino
cars
Efficient parking management
revenue

TRANSPARENT BOX

Power supply

IR sensors

Arduino

cars

Car approaches → Sensor detects the car → Message sent to Arduino

↓

The program checks whether the parking space is available or not

← If there is a parking space available the barricade opens else it notifies no space available

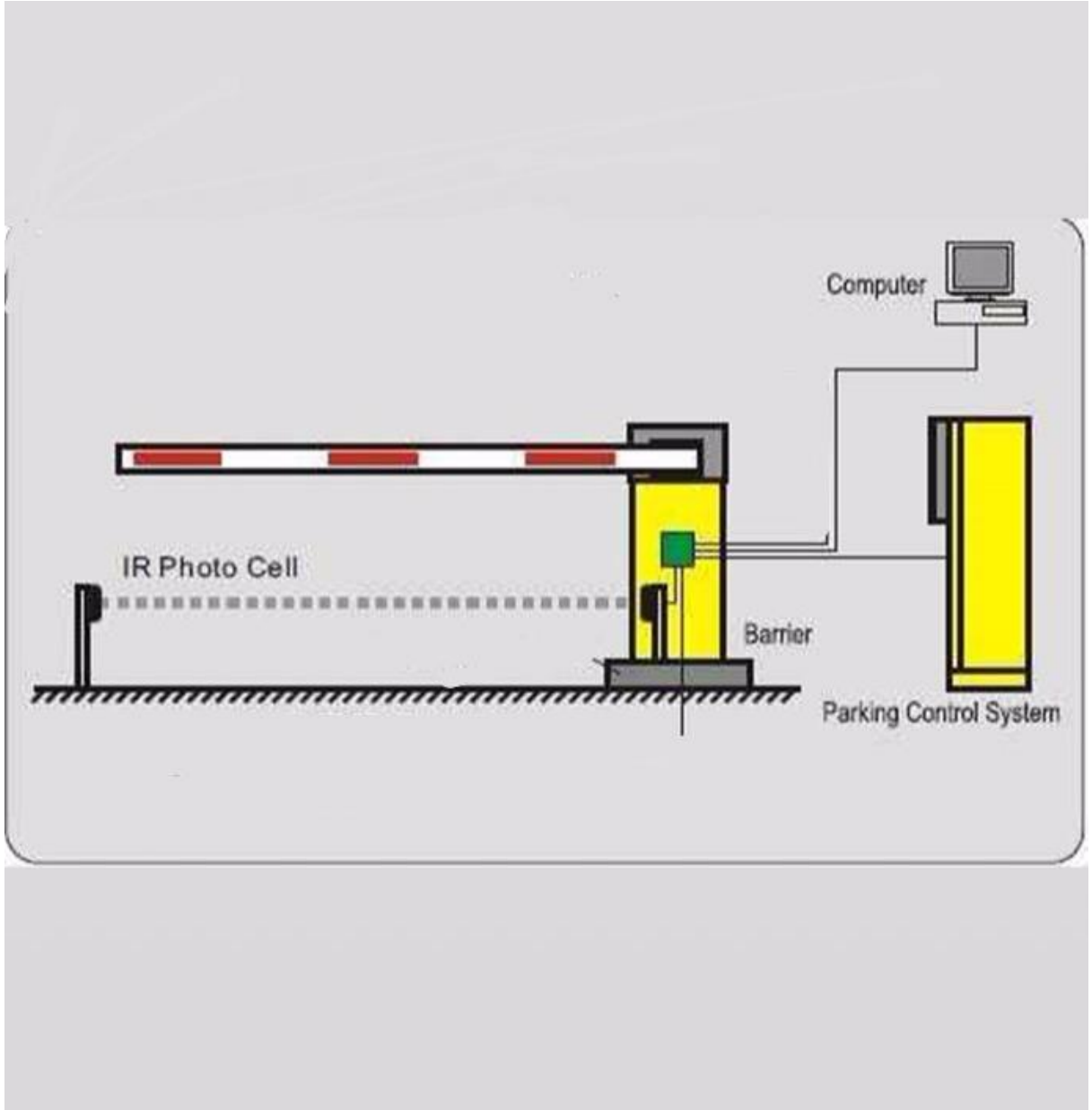
← The program auto checks when someone parking more than a certain time and sends the SMS to the driver

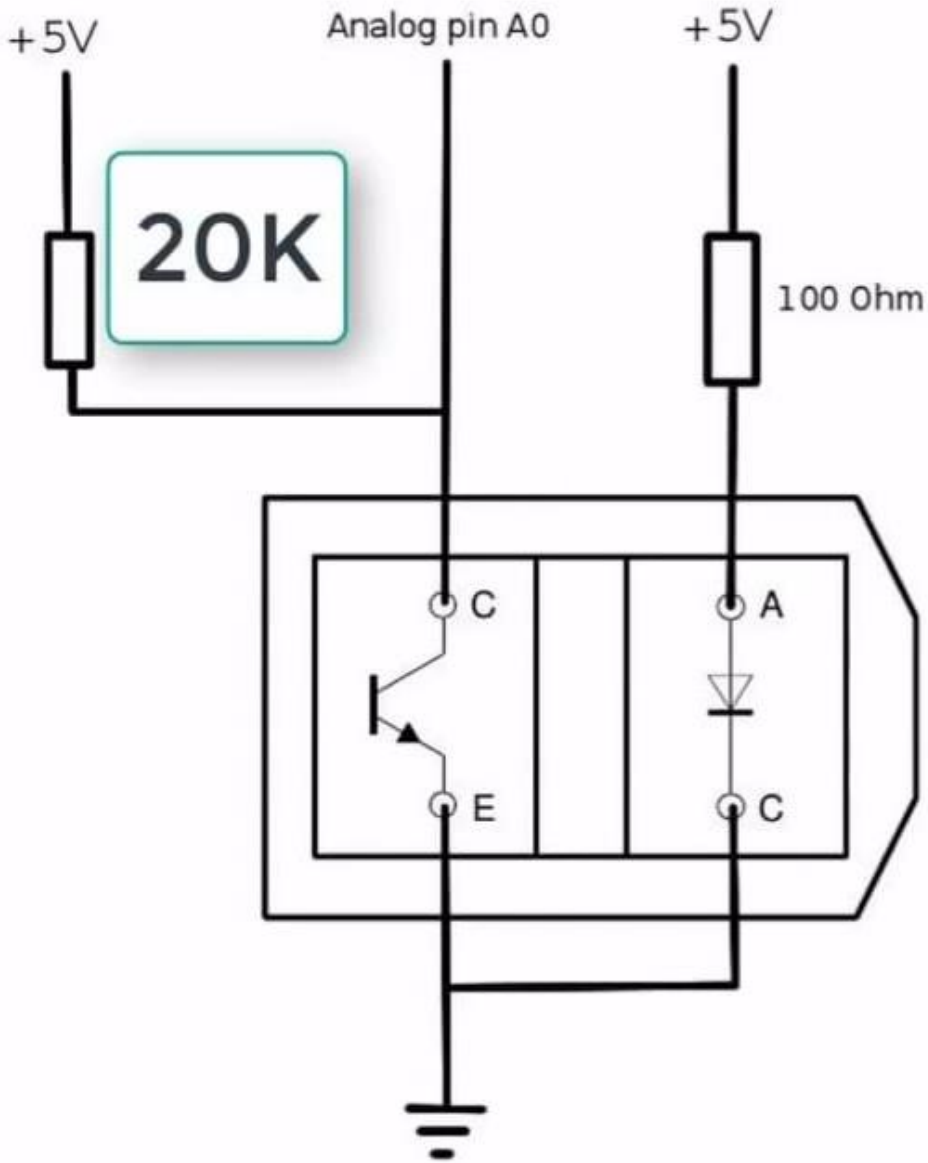
Efficient parking management

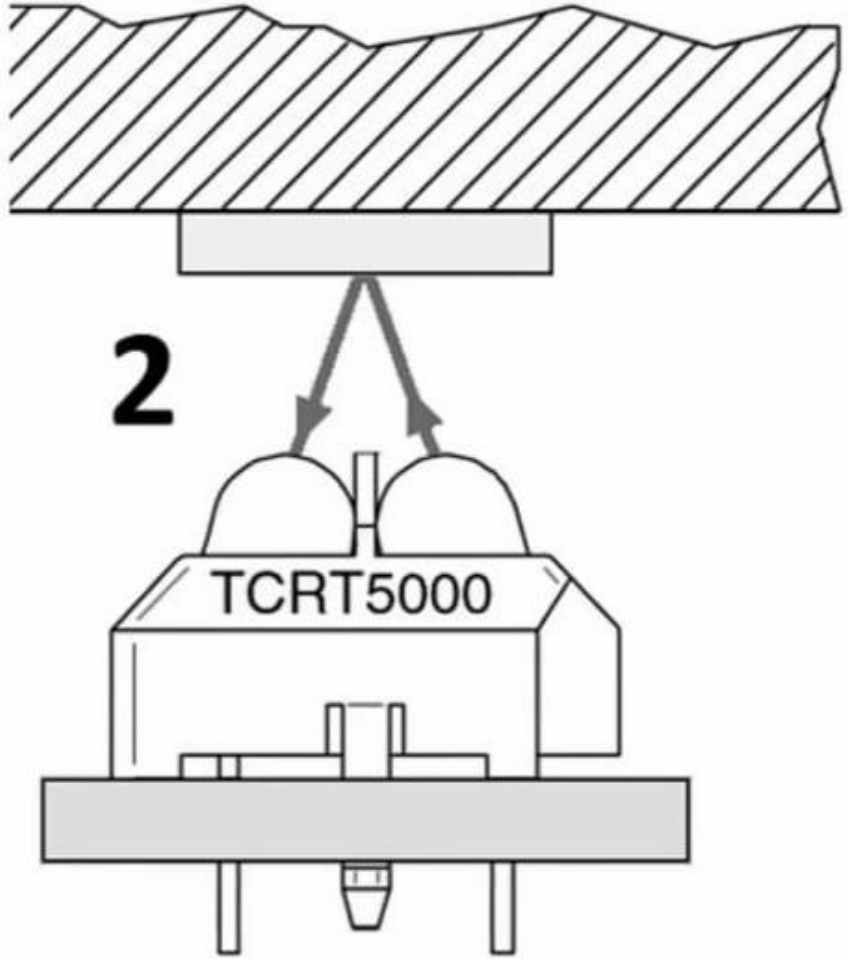
→

revenue

MECHANISM




+5V
Analog pin A0
+5V
20K
100 Ohm
C
A
E
C


2
TCRT5000

THANK YOU