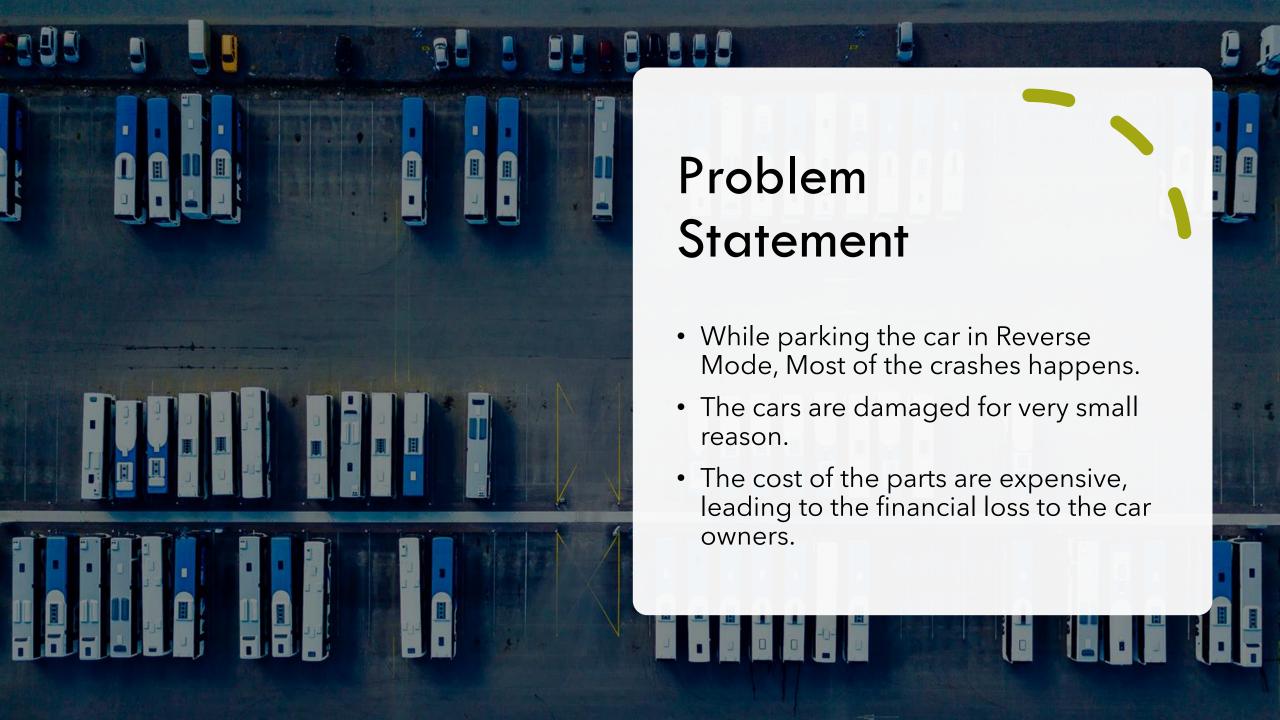
## Parking Assistant Using STM32



Shrey Kothavade Summer 2022 Intake

Matriculation Number: 11018044



#### Solution

- To avoid all of these Issues, A simple Parking assistant can be used.
- A parking assistant can help you when the car can bump while in reverse mode.
- To solve the issue, IR sensor can be used to detect the distance and warn the driver.



#### Use of Components

- IR sensor
- Buzzer
- OLED Display
- Jumpers
- STM32F407 Discovery Board
- Jumpers
- Breadboard

### Working Of the Project

- IR sensor will be continuously on.
- Development Board will take digital read from the IR Sensor.
- For the communication with the Sensor, I2C protocol is used.
- As the Sensor reads '0', "!!!Warning!!!" message will be displayed on the OLED.
- Also, Buzzer will buzz.
- As the Sensor read '1', OLED will display "Go Back" message on the OLED.

#### Components Specifications

- IR Sensor
  - To Interface IR with STM32 Board, ReadPin command has been used
- OLED
  - To Interface OLED, SSD1306 library has been used.
- Buzzer
  - Buzzer can be operated by toggling the pin.

### Topics Covered in the Project

- Use of Sensor
- I2C Communication Protocol
- Real-life application

# / Thank You