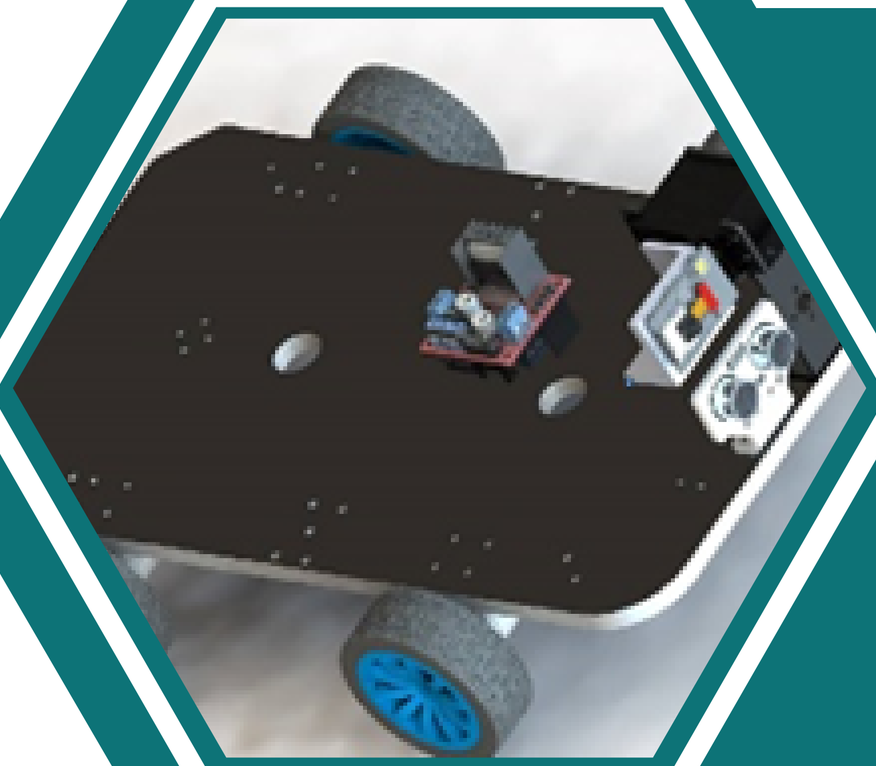
SURVEILLANCE ROBOT



GRADUATION PROJECT II

SEPTEMBER, 2022

Team

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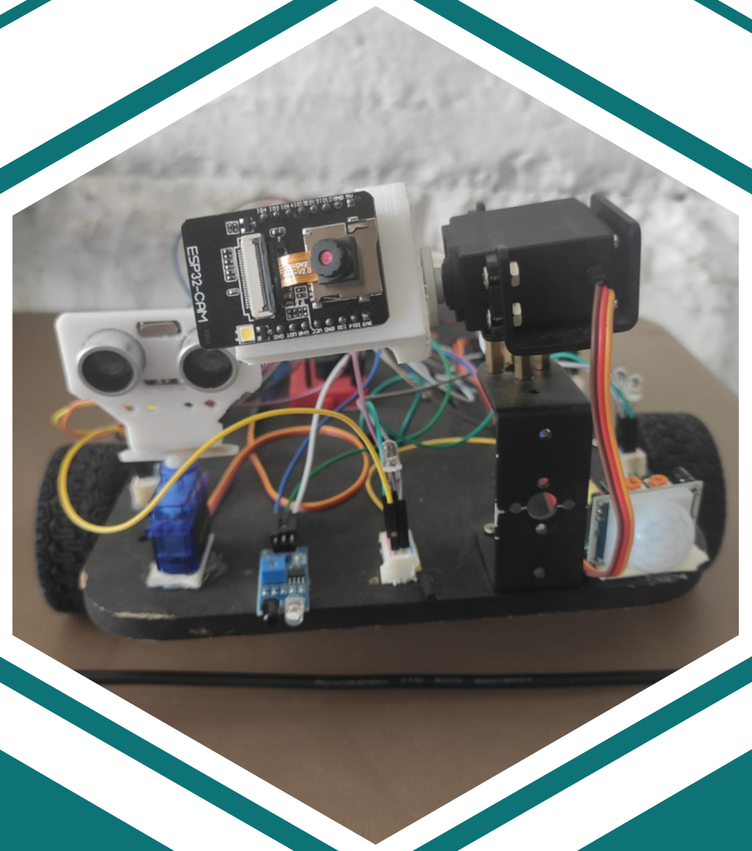
Outlines

- Team
- Introduction
- Hardware Components
- Features
- Future work
- Overall Design
- Demo

Introduction:

surveillance robot is a possible solution to discover places that it is dangerous for humans to be in these places .

in this project we designed a robot that could be controlled in two different modes :control it to move forward ,backward ,rotate left and right using web page or an autonomous mode which makes the robot move individually .



Serveillance Robot

Not secure | 192.168.1.11

Google ترجمة | Gmail | full cource | cource par1 | Remote control Ard... | light sensor arduin...

Turn right

forward | Stop | backward

Turn left

control

Flash

Speed

Servo

ENG 2:36 PM 8/21/2022

Features

the features we worked in this project as follows :

1. we controlled the speed of the robot in range from 0 to 255(highest)
2. we put the esp-32 camera on a servo that could be controlled to move up and down .
3. we controlled the flash to make a better streaming for camera in the dark

Features

4.we added a gas sensor that Measures the proportion of gas . and if it exceeds the allowed limit it will send us a notification massege "there is a gas leakage" to signal app .

5 . IR sensor :as above it will send a notification " IR detects an object here "

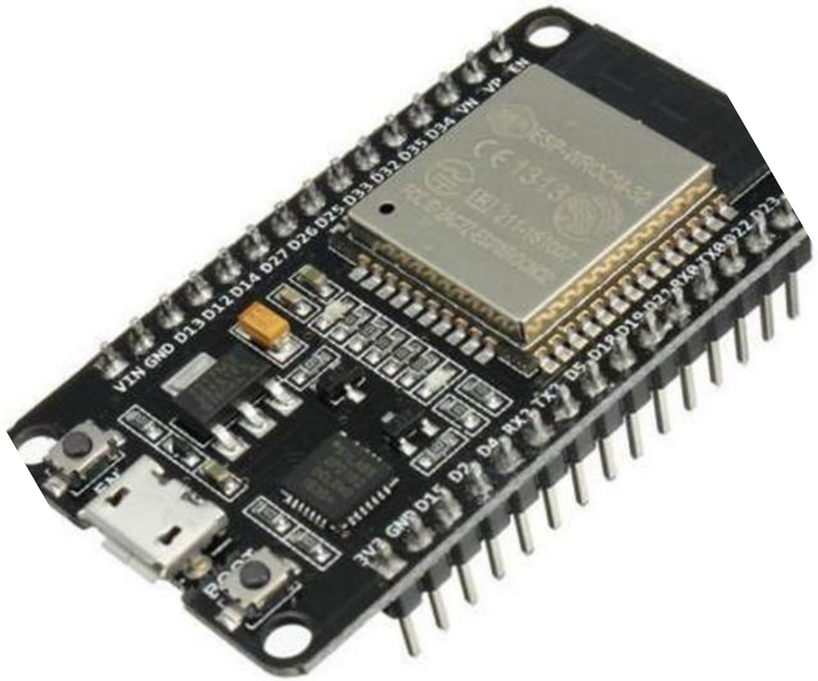
6. LDR: If the place is dark the leds will be on .

Features

7. motion sensor : if the motion sensor detects a movement , the camera will capture a photo and send it to our telegram account .

Microcontrollers:

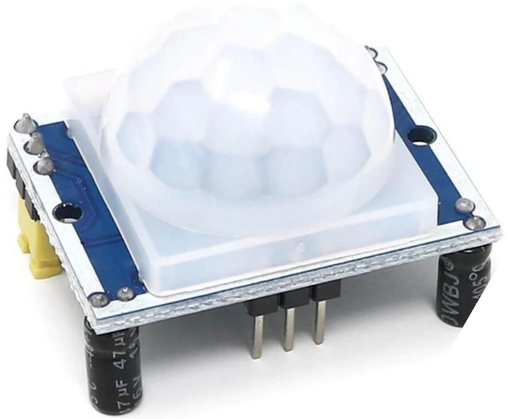
ESP32-Camera



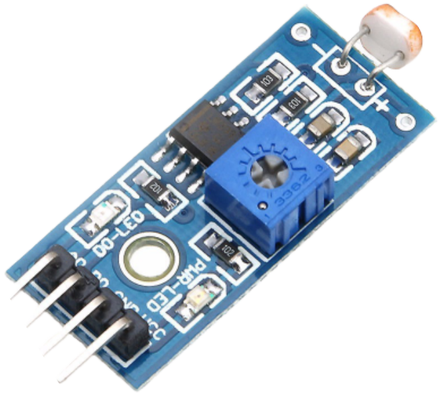
ESP32-WROOM

Sensors:

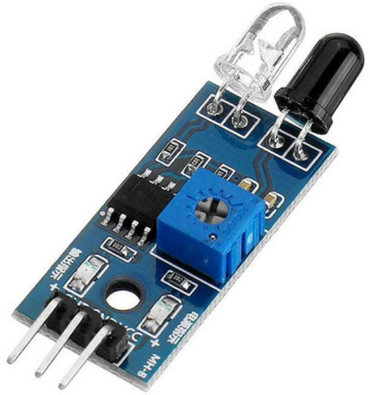
Ultra Sonic



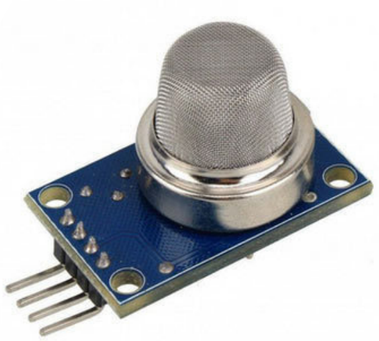
Motion Sensor



LDR Sensor



IR Sensor



Gas Sensor

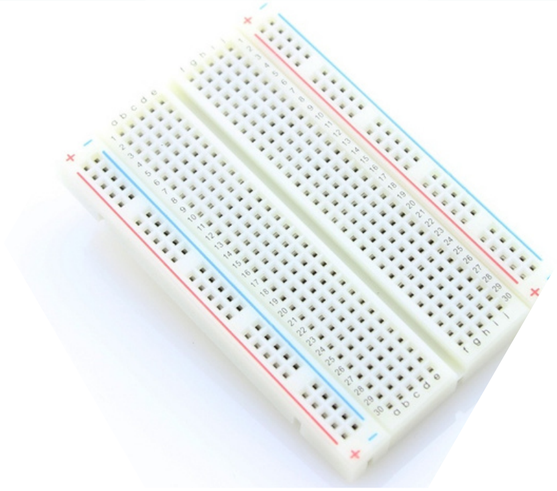
Motors:

Micro Servo

MG995 servo motor

JGA25 Motor x4

Other Components :

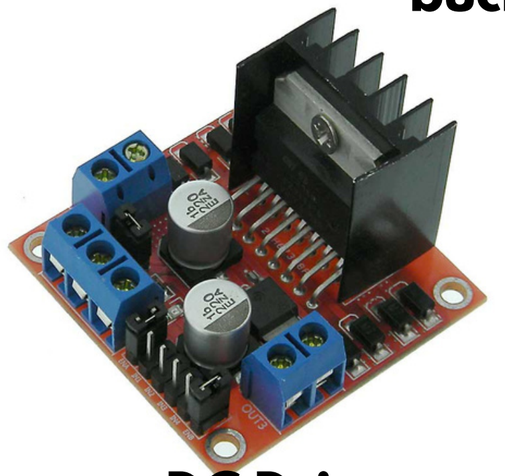


Bread board

Lever

buck convertor

jumber wires



DC Driv

Future Work

1. change the tiers to be like tractor tiers
2. use more accurate electronic components
3. transmit voice over the internet

DEMO

hope you'll like it

youtube link

THANK YOU