



# FLOWER WATERING BOT

**CSE 495**  
**2.Presentation**

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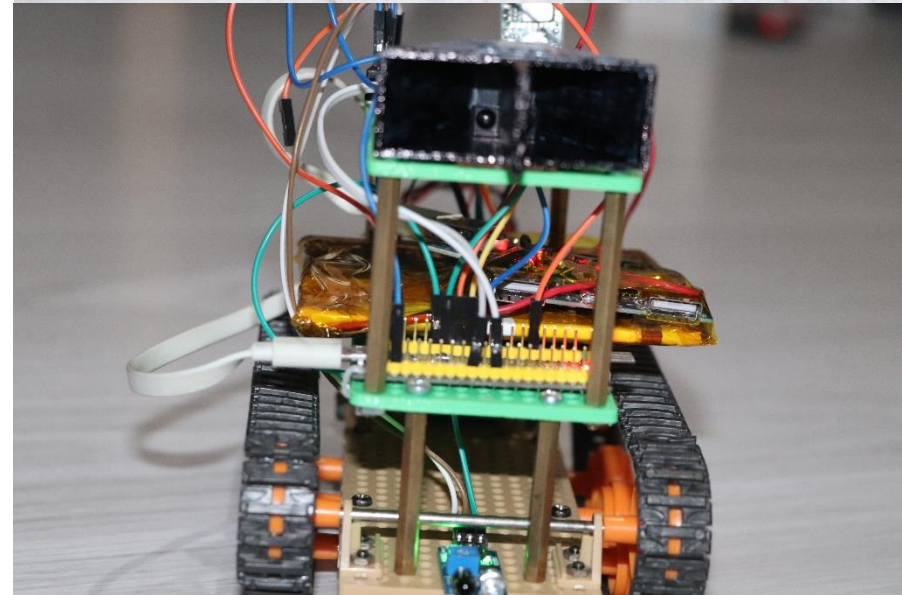
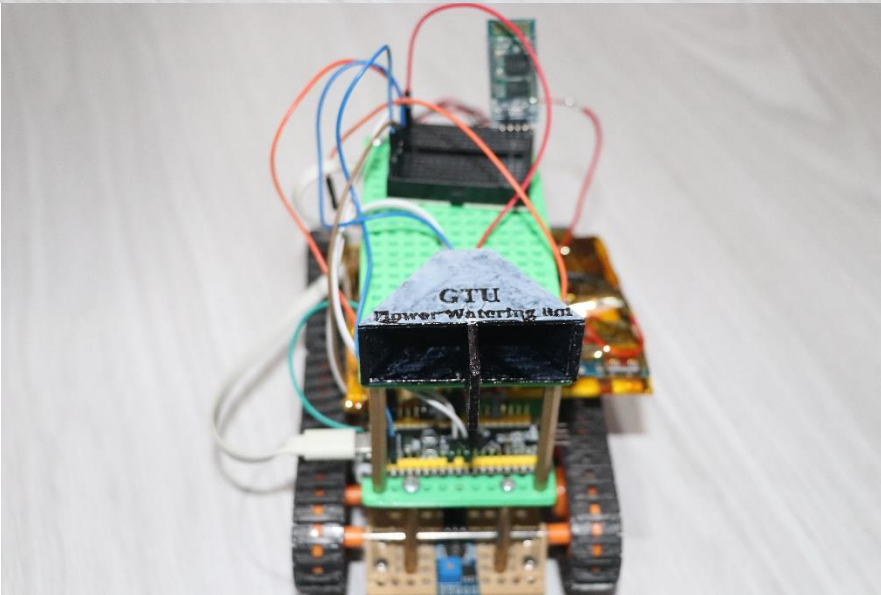
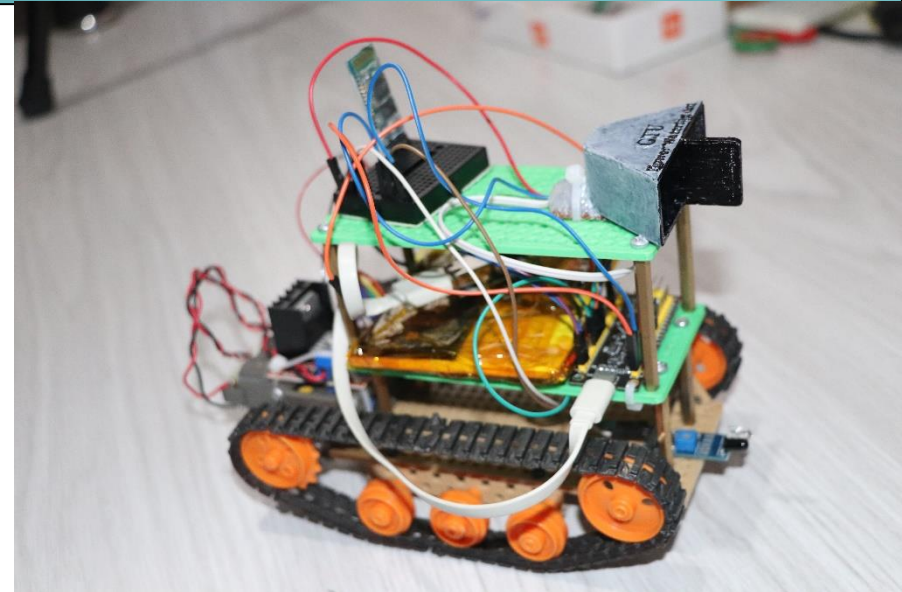
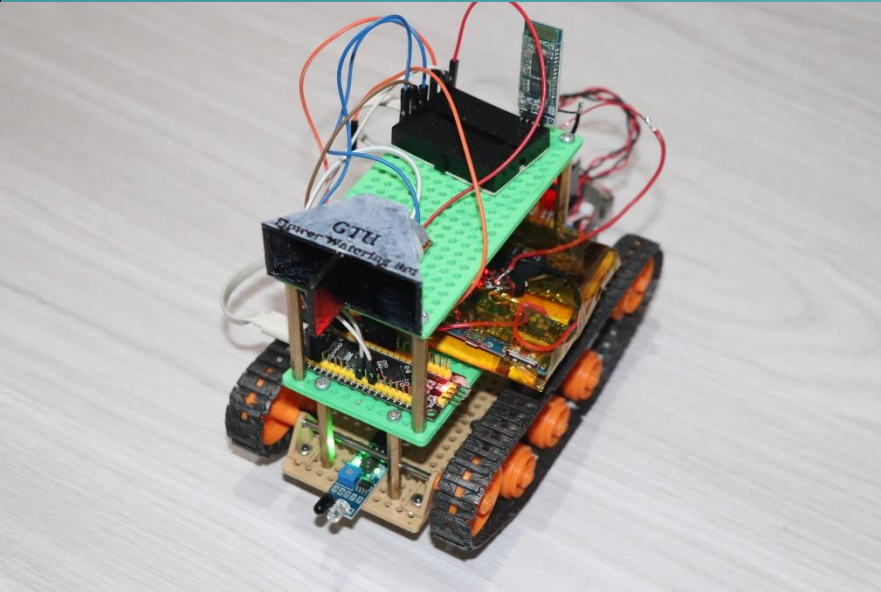
- 20.10.2021 - 10.11.2021 2.Presentation

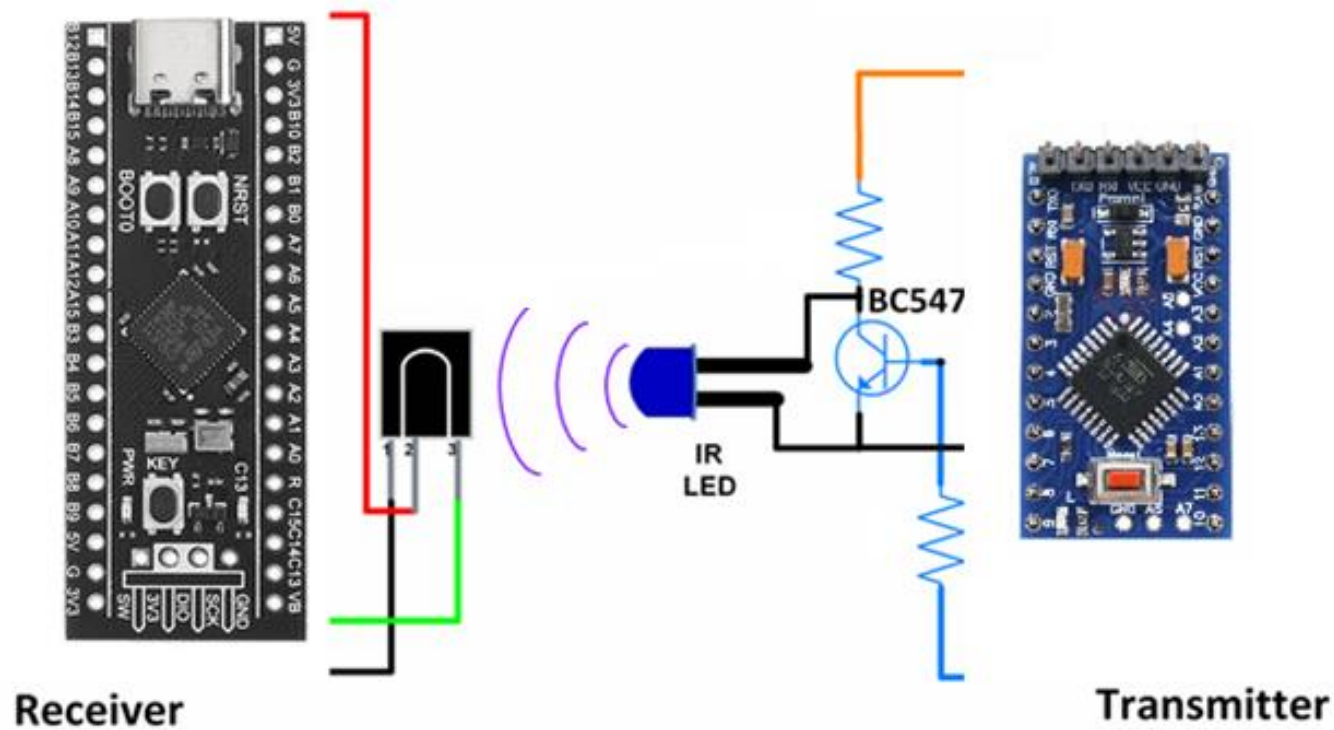
Combining equipment.

Starting the hardware is the first tests.

Performing the operation of finding a flower.



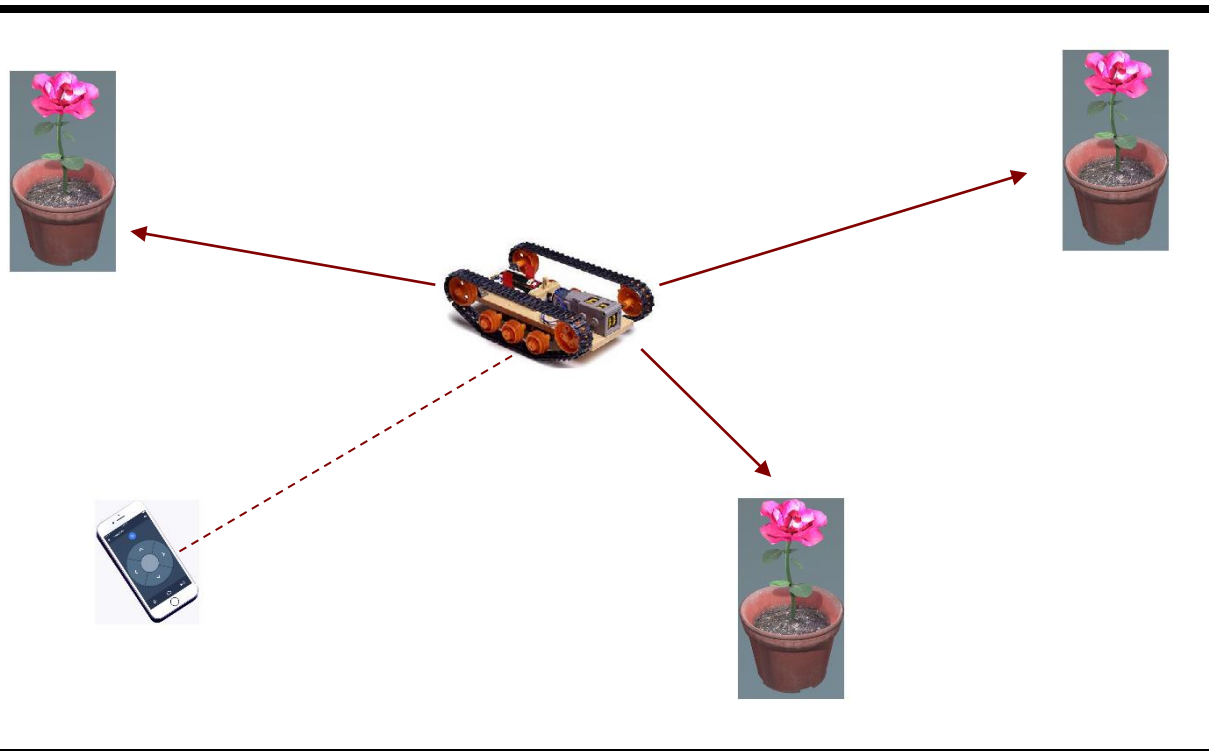




Receiver

Transmitter

# Scheme and Description of the Project

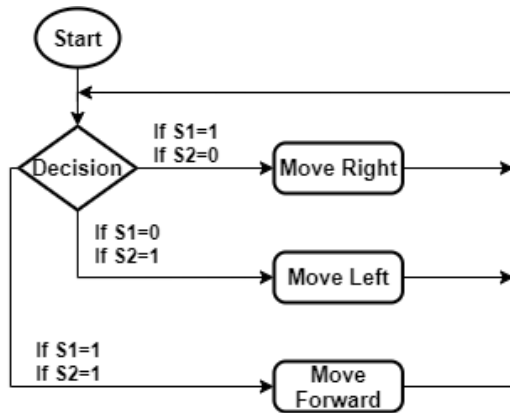


- In this project, a robot will be designed that can water the flowers in the house.
- Water amount and periods will be controlled via an android application.
- The robot will be able to automatically find the flowers and give water. In addition, manual control and watering will be possible through the application.

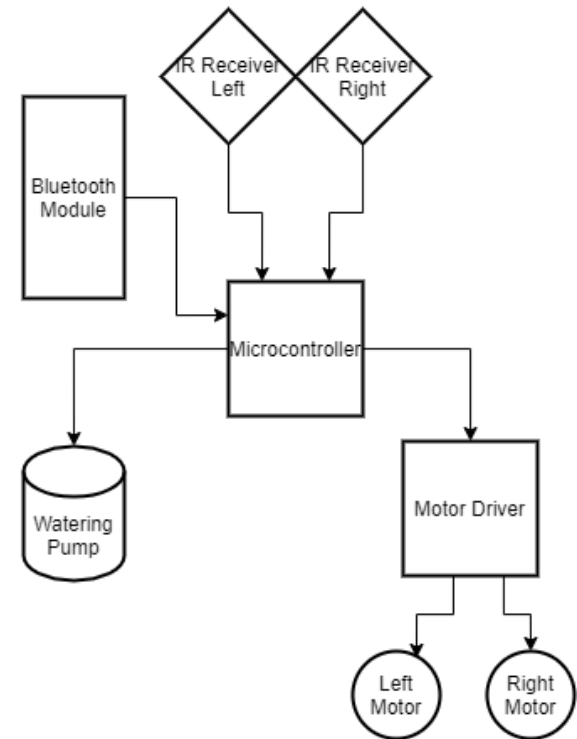
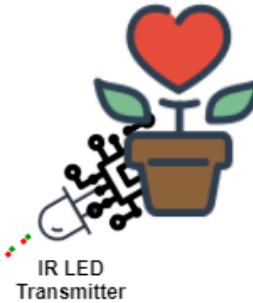
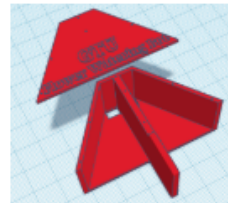
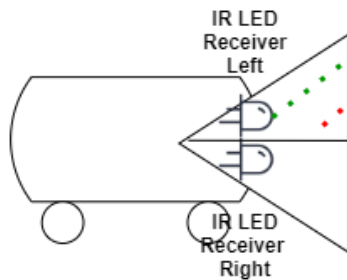




# Project Design Plan



S1= IR Receiver 1  
S2= IR Receiver 2  
1=HIGH Signal  
0=LOW Signal  
When S1 & S2 = 0  
Then Stop



# Project Requirements

- All parts of the robot must be put together.
- A system should be developed for flowers to send IR signals.
- An algorithm should be developed for the robot to move forward with the incoming signals.
- A system should be developed to find the desired flower by means of IR signals with the robot.
- An algorithm should be developed for Bluetooth communication.
- Android application should be developed for robot control.
- A system should be designed for water pump control.

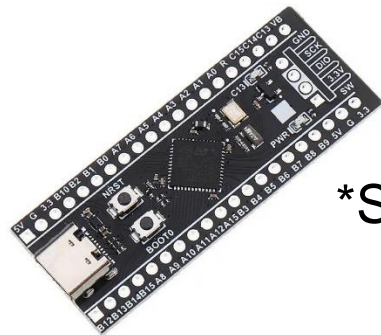


## Hardware Requirements

- \*Robot Body
- \*Motors
- \*Motor Driver
- \*Battery
- \*STM32FXXX Microcontroller
- \*Bluetooth Module
- \*Water Pump
- \*IR Receiver-Transmitter

## Developing Requirements

- \*STM32CubeIDE for STM32F4 Microcontroller
- \*Android Studio IDE for Mobile App





1. The flower to be watered must be found by the robot in a 30m<sup>2</sup> environment.
2. The watering period and amount must be adjusted via Bluetooth by application.
3. The flowers must be distinguishable by the device and be watered differently period and amount.
4. It must be controlled manually via the application. (forward, backward, right, left)
5. The pump must be controlled manually via the application.



- 20.10.2021 - 10.11.2021 2.Presentation

Combining equipment.

~~Starting the hardware is the first tests.~~

~~Performing the operation of finding a flower.~~

- 10.11.2021 - 8.12.2021 3.Presentation

The presence of more than one flower separately.

The process of watering the flowers.

Design of mobile application, communication with hardware.

- 8.12.2021 - 19.01.2022 4.Last Presentation

Control via mobile app.

Watering process via mobile.

Watering amount and period setting.



1. *FOLLOW ME ROBOT USING INFRARED BEACONS* Salman Afghani, Muhammad Ishfaq Javed Army Public College of Management and Sciences, Rawalpindi, PAKISTAN ISSN-L: 2223-9553, ISSN: 2223-9944 Vol. 4 No. 3 May 2013

