

Presentation On IOT based smart gate



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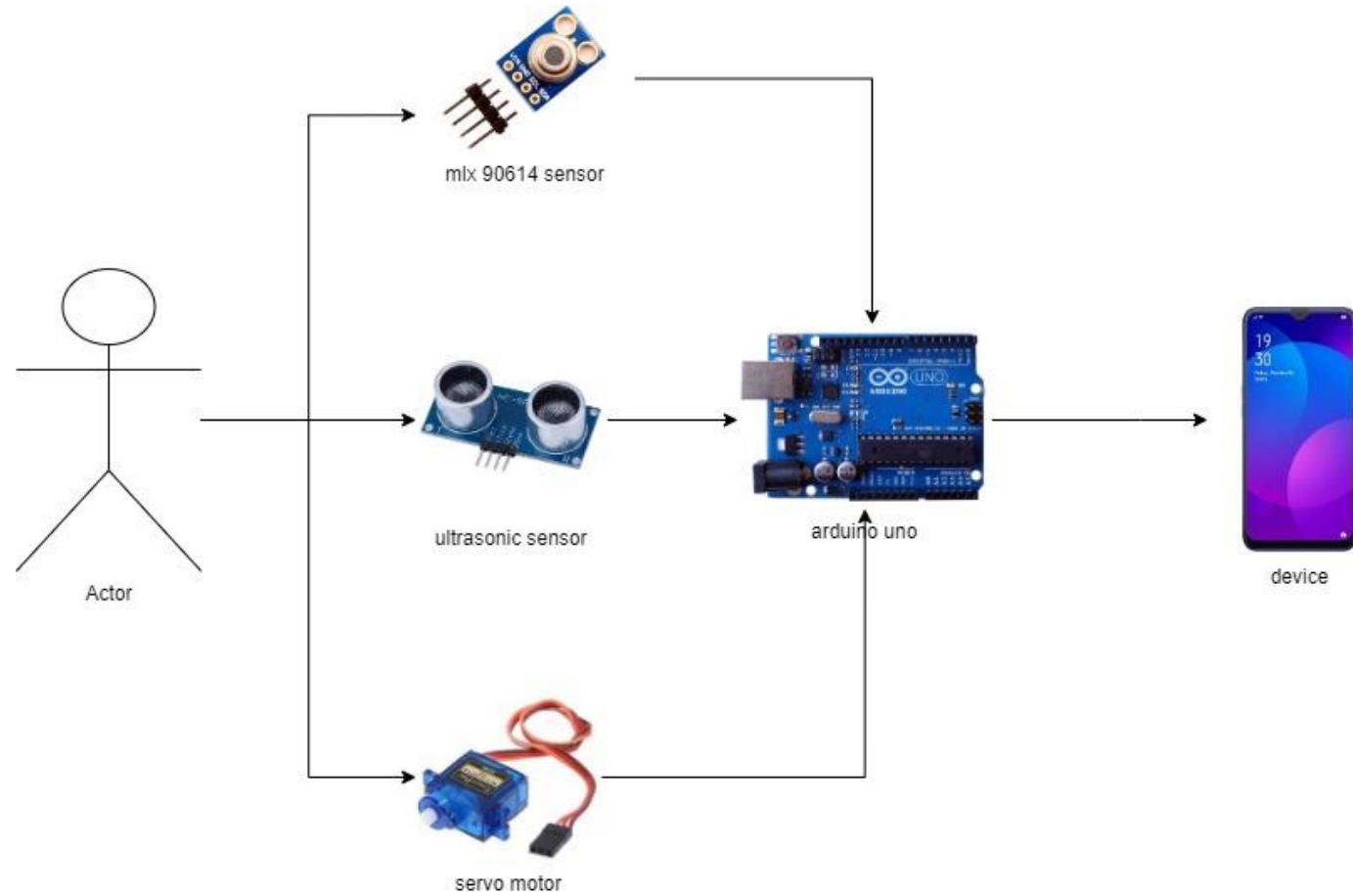
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Introduction

- At the time of covid-19 as we all know that how this affects our life styles. Where ever we go every one wants to check our temperature.
- This gate can also work as security gate At the place of Gate keepers.
- In this we use ultrasonic sensor, mlx90614, servo motor and arduino Uno.

Layout



Components

- Ultrasonic sensor

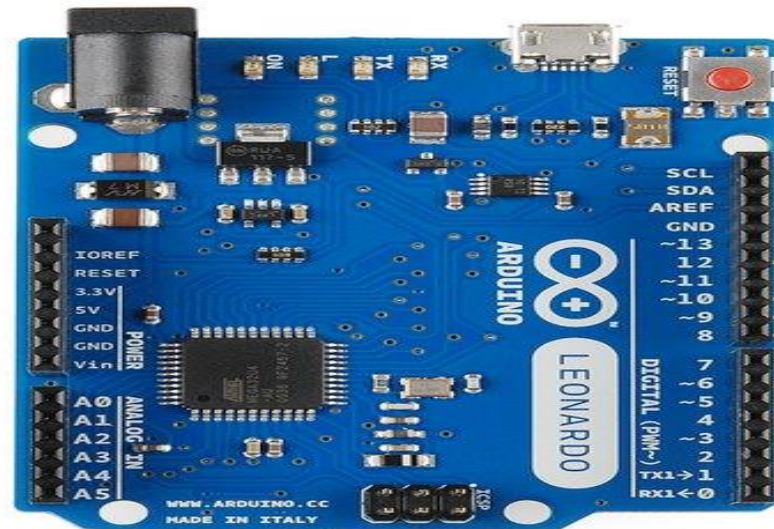
Ultrasonic sensor measures the distance to the target by measuring the time between the emission and reception.



Components

- Arduino uno

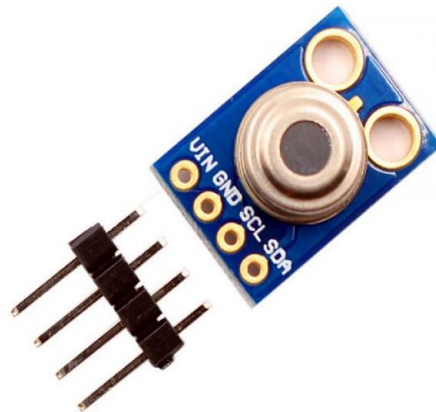
The arduino uno is an open source micro controller Board based on the microchip ATmega328p micro controller.



Components

- Mlx90614 sensor

Mlx90614 is a contact less Infrared sensor. The mlx90614 is infrared thermometer for non contact temperature measurements capable of measuring temperature.



Components

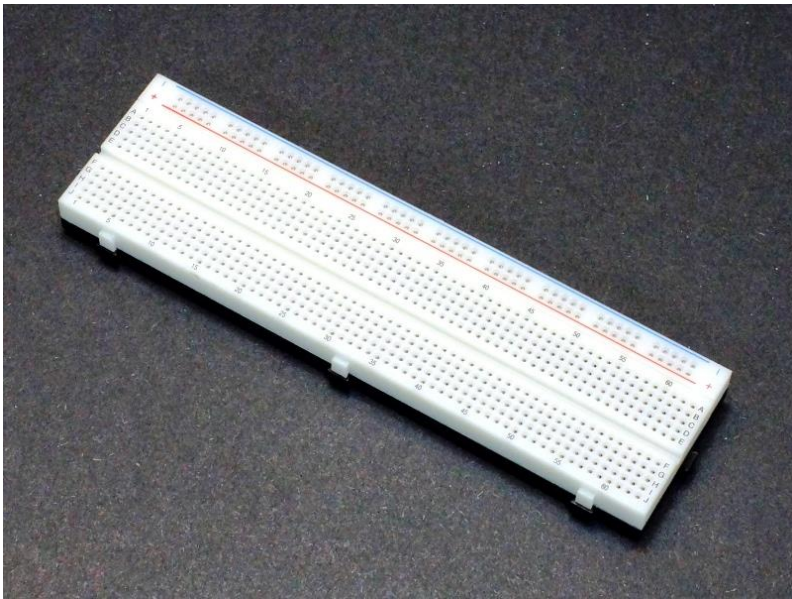
- Servo motor

A servo motor is a rotational actuator or linear actuator that allows for precise control of angular or linear position, velocity and acceleration .

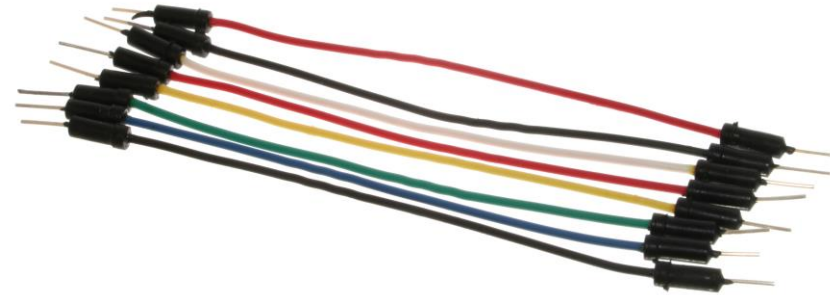


Components

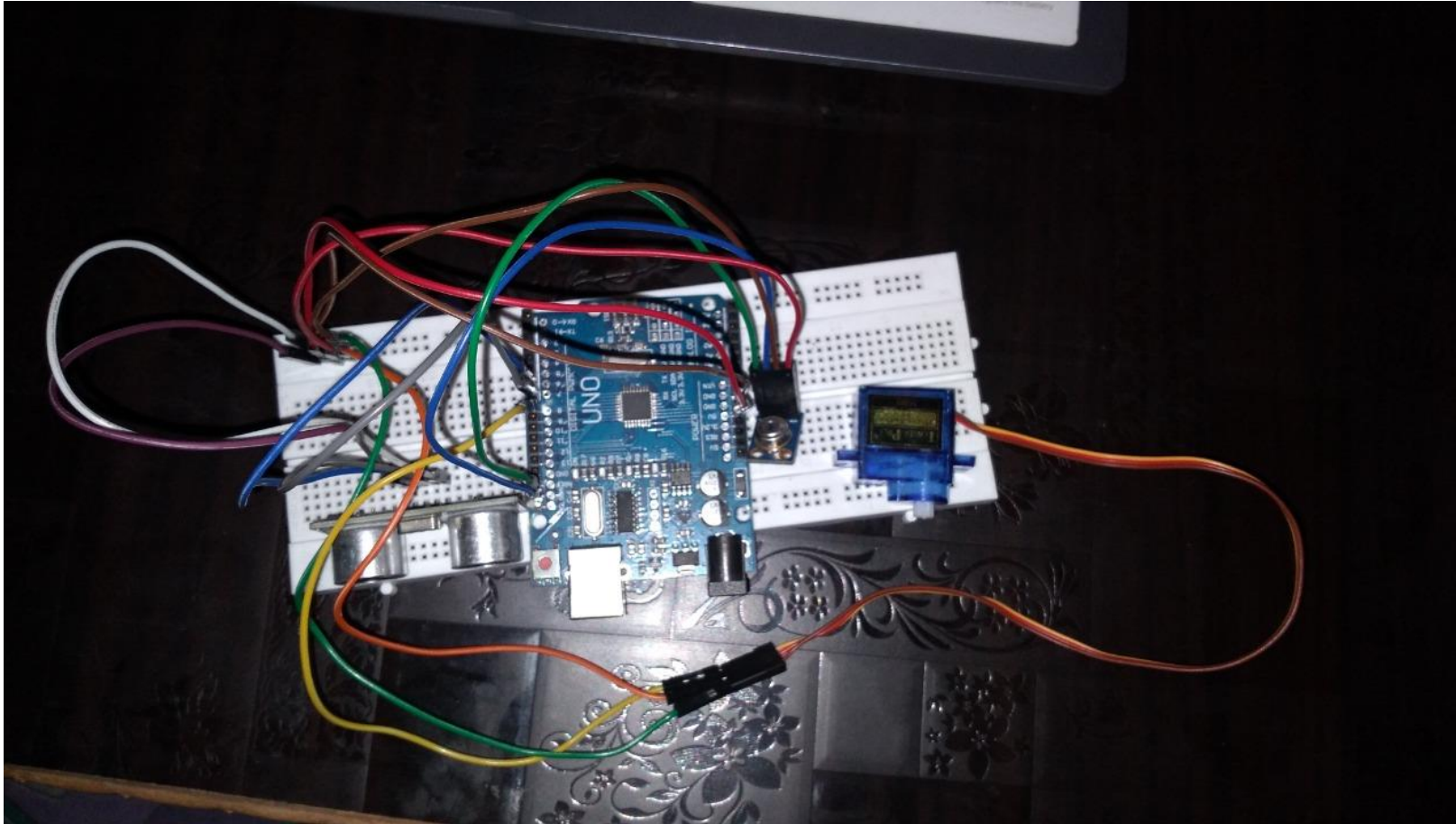
- Breadboard



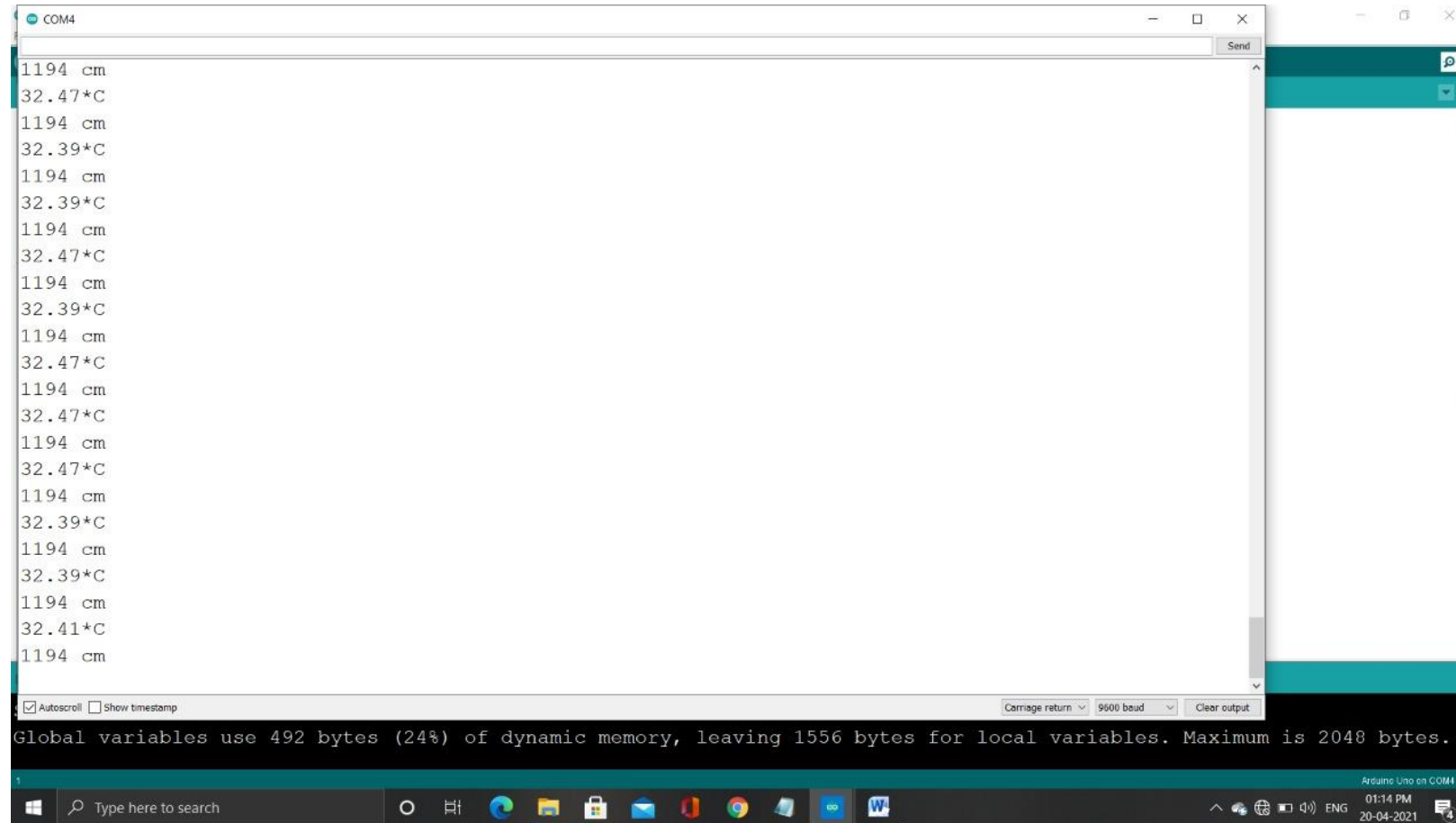
jumper wires



Working model



Result



The screenshot shows a serial monitor window titled "COM4" with a "Send" button in the top right. The main area displays a list of sensor readings: distance in centimeters (cm) and temperature in degrees Celsius (*C). The data is as follows:

Distance (cm)	Temperature (*C)
1194	32.47
1194	32.39
1194	32.39
1194	32.47
1194	32.39
1194	32.47
1194	32.39
1194	32.47
1194	32.39
1194	32.47
1194	32.47
1194	32.47
1194	32.39
1194	32.39
1194	32.41
1194	

At the bottom of the window, there are checkboxes for "Autoscroll" (checked) and "Show timestamp" (unchecked). To the right of these are dropdown menus for "Carriage return" and "9600 baud", and a "Clear output" button. Below the main text area, a status message reads: "Global variables use 492 bytes (24%) of dynamic memory, leaving 1556 bytes for local variables. Maximum is 2048 bytes." The bottom of the image shows a Windows taskbar with the search bar, taskbar icons, and system tray information indicating the time is 01:14 PM on 20-04-2021.

Future scope

- We can use this gate in smart home automation by using some more sensors
- We can send health info which is generated by this gate to our doctor.
- This gate can share the info of about home to the owner of the house.

Conclusion

At the end of the project we get our functional gate.

Thank you