

HEIGHT MEASUREMENT

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Abstract

In defence related recruitments due to the fake uploading of physical measurements like height the selection boards are facing difficulties while recruitment. Also some other traditional methods like stadiometer, measuring tape, wall marking methods we cannot measure height accurate and precise. We are developing a system which measures the accurate height of any individual without any error and less time consuming. Mainly which avoids the difficulties faced by the selection boards. Also we can get height measurement in any units like inches, feet, centimeter and reduces the man power.

1. INTRODUCTION

Height assessment is important for clinical, anthropological, forensic, as well as in defence recruitments. Height detection is a process of measuring the accurate height of a person or an object. Height measurement is a convenient method compare to traditional one using measurement scales. This kind of measurement is particularly applicable in inaccessible areas where traditional means cannot be implemented.

2. RELATED WORK

Initially stadiometers, wall marking are used to measure the height of every person. For such kind of traditional methods it requires the man power. As the dependency of human on technology increases more and more products are launched for

making human life easy. When sensors came into role the concept of distance measuring introduced. Distance sensors are constructed to measure the distance, this type of application requires no man power. Distance measurements are distinguished on the basis of sensor range. The problem occurring with current traditional methods like stadiometer, wall marking methods this cannot provide accurate values without any error. During the state government, central government defence related recruitment while recruiting, the selection board facing issues in fake height measurements in applications. If the applications are more than expected there is a chance of increasing the cut off height in defence recruitments for the reduction of

applicants. Selection board has to check height of every individual, it is a difficult task to measure height of every applicant.

3. IMPLEMENTATION

The main objective of the project (HEIGHT MEASUREMENT) is while conducting any defence, state, central government rallies, and no selection should face any difficulties while measuring height. And to reduce man power while recruitment. Also to get accurate height without any error.

Requirement Analysis

1. Arduino uno
2. 16x2 lcd display
3. Distance sensor
4. 5volts adaptor
5. Jumper wires
6. Breadboard
7. Rectangular frame
8. Potentiometer

When a person stands under the distance sensor, the distance sensor measures the distance between the head of the person to sensor.

- And according to the source code the measured distance will be get subtracted from total height to get the height.
- This data will be get processed in Arduino, then given as input to 16x2 LCD display it displays the output in required

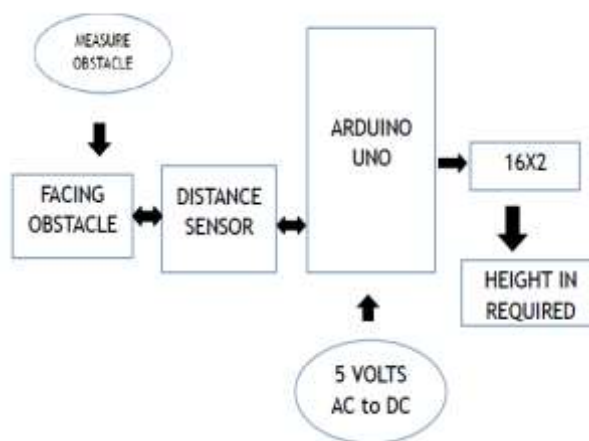
measurements (example:-inches, centimeter).

The height is defined as the measurement of the distance of an object from the base to the top. Sometimes, in Geometry, it is labelled as altitude. It measures the vertical distance from the lowest to the highest point. In General, it is the measurement along the y-axis of an object in the coordinate geometry. In defence related recruitments due to the fake uploading of physical measurements like height the selection boards are facing difficulties while recruitment. Also some other traditional methods like stadiometer, measuring tape, wall marking methods we cannot measure height accurate and precise. We are developing a system which measures the accurate height of any individual without any error and less time consuming. Mainly which avoids the difficulties faced by the selection boards. Also we can get height measurement in any units like inches, feet, centimeter and reduces the man poor.

The main aim of the project is to give Main objective is to measure the height with more accuracy and less error and automatically without help from any person. The sensor measures the distance between the head of the person to sensor. This data will be get processed in Arduino, then given as input to 16x2 LCD display

it displays the output in required measurements. During the state government, central government defence related recruitments. While recruiting, the selection board facing issues in fake height measurements in applications.

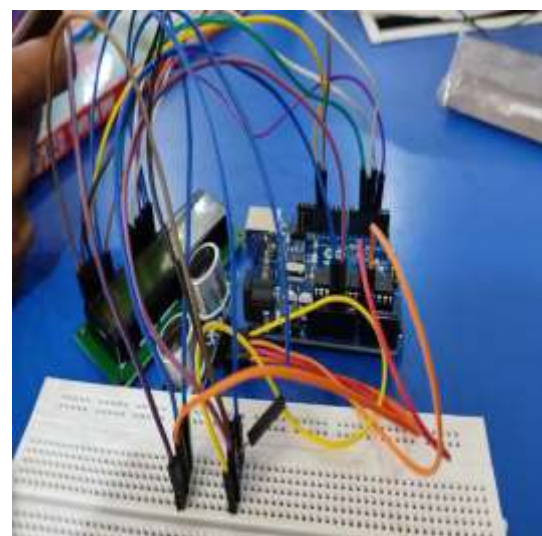
- If the applications are more than expected, there is a chance of increasing the cut off height in defence recruitments for the reduction of applicants.
- Selection board has to check height of every individual; it is a difficult task to measure height of every applicant.



4. EXPERIMENTAL RESULTS

Sensor is a device that converts one type of energy to another. Arduino is a small microcontroller board with a USB plug to connect to the computer. The Arduino board senses the environment by receiving input from a variety of sensors and can affect its surroundings by controlling lcd, speakers, motors and GS module. Ultrasonic Sensor measure the distance of target objects or materials through the air

using “non-contact” technology. They measure distance without damage and are easy to use. The output Signals received by the sensor are in the analog form, and output is digitally formatted and processed by microcontroller. In present work, it is used to detecting an obstacle, along with its exact distance. The internal analog to digital converter is used is calibrated to get almost accurate distance measurement. The measured distance is also displayed on an LCD screen.



5. CONCLUSION

Mainly height detectors are used to measure accurate height of a person or an object. This height measurement is mainly used in recruitment rallies to avoid errors in height measurement

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