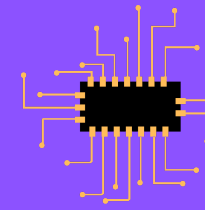




Team Random



Technotica 2022-23



# ARDUINO BASED HAND GESTURE CONTROL OF COMPUTER



# About Us

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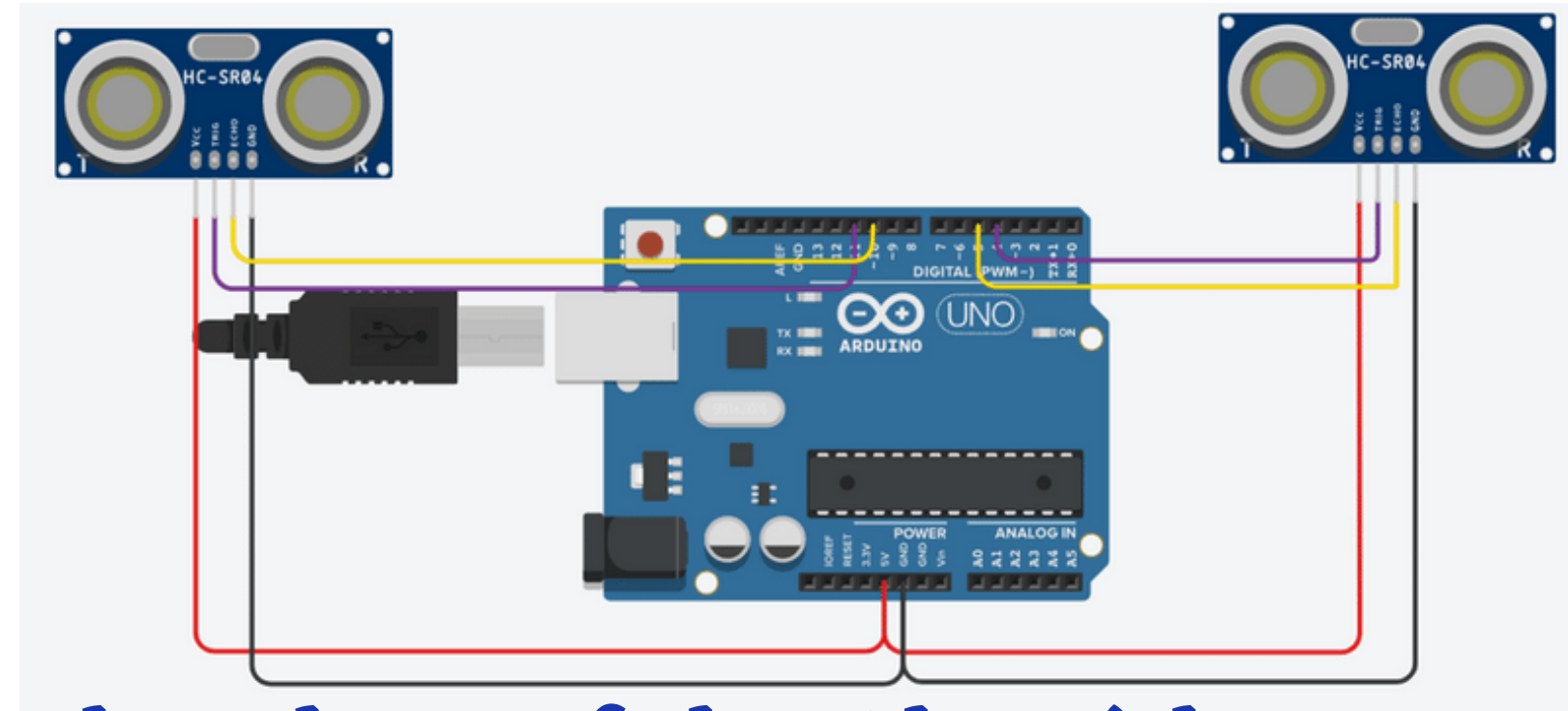
# Objective

**The idea behind the project is quite easy by using two Ultrasonic Sensors (HC-SR04) with Arduino. We will place the two sensors on the top of a laptop screen and calculate the distance between the hand and the sensor. Counting on the information from Arduino that is sent to Python through the serial port, this information will then be read by Python which is running on the computer in order to perform certain actions**

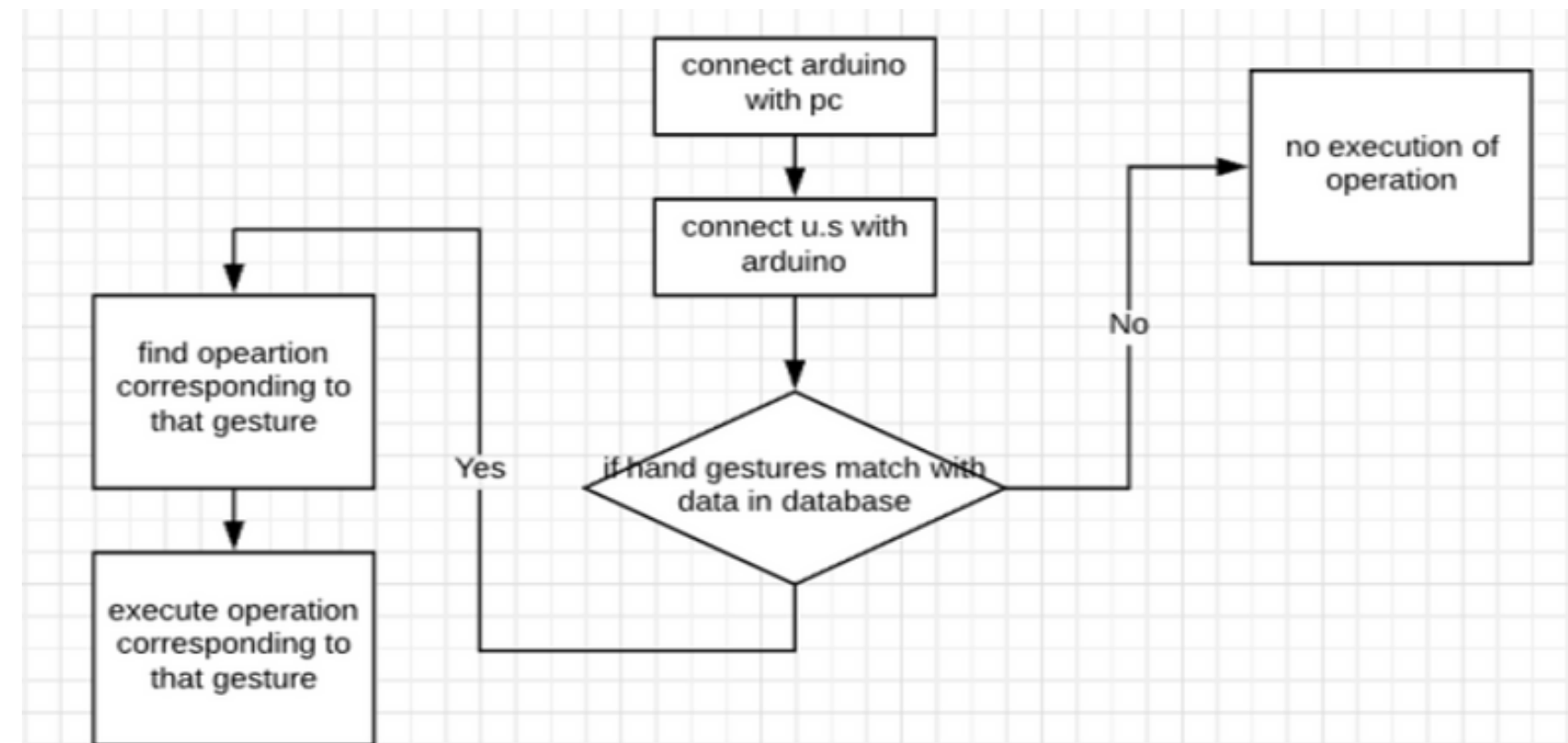
**subheading**

# Our Solutions

## Circuit diagram of system



## Flowchart of the Algorithm



# Tentative Budget



Products	Costing
Arduino	500
Ultrasonic Sensor(HC-SR04)	$65 \times 2 = 130$
Soldering iron wire and Paste	100
Wire	30
<b><i>TOTAL</i></b>	<b><i>760</i></b>



# APPLICATIONS

**Gesture recognition is useful in processing information from human beings that is not conveyed through speech or other methods. This technology is useful in following areas:**

- a. Immersive gaming technology: Gestures may be used to control interactions with the gaming console and give a more interactive and immersive experience.
- b. Control through facial gestures: This technology can be used for applications with even more precision like recognizing face gestures. This will be helpful in situations when users cannot use other input interfaces like mouse or keyboard or even hand gestures. This would be additionally helpful in applications like mood sensing.
- c. Alternative computer interfaces: Strong gesture recognition can be used to accomplish common tasks performed traditionally with the current input devices such as mouse or keyboard. Gestures, along with other methodologies like speech recognition can be made to control the electronic appliances and gadgets completely or with little need to type or touch.
- d. Remote control: By using gesture recognition, it is possible to use hand alone as a remote control for various devices. The signal must not only indicate the desired response, but also which device to be controlled.
- e. Home Appliances control: It is possible to extend the gesture recognition technology to control the household appliances.

# REFERENCES

R. Mukherjee, P. Swethen, R. Pasha and S. Singh Rawat“ Hand Gesture Controlled Laptop Using Arduino”,International Journal of Management, Technology And Engineering, Vol. 8, pp. 1037-1043, Oct. 2018.







THANK YOU