**TITLE : GESTURE MOTION CONTROL USING ARDUINO KIT**

In this project, we are going to learn how to build gesture-controlled laptops or computers. It is based on using the combination of Arduino and Python.

Instead of using a keyboard, mouse or joystick, we can use our hand gestures to control certain functions of a computer like to play/pause a video, move left/right in a photo slideshow, scroll up/down in a web page and many more. This is why I decided to control VLC Media Player as a hand gesture project.

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.

**Hardware components:**

* Arduino
* Two Ultrasonic Sensors (HC-SR04)
* Some wires

**Software apps:**

* Arduino IDE
* Python IDLE
* PySerial library (We will use to communicate with serial ports).
* PyAutogui library (We will use to perform actions).