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GESTURE HAND GLOVE

SUMMARY OF INVENTION

The Hand Gesture Cursor is a new approach of controlling cursor movement using flex band sensor as the cursor controller and Bluetooth as the connector between the device and a computer. It is to develop a new way to control a cursor. The flex band moves simultaneously with the movement of our fingers. The purpose of this project also is to build a device that not only can control the cursor without using any mouse, we even not require to touch the screen of smartphones anymore. Besides, most of the smartphone can connect with a Bluetooth devices. Our method is to build the device with several hardware such as flex band sensor, Bluetooth connector and will be programmed using Arduino and Python language.

OBJECTIVES

- Ability to improve interaction between human and technologies.
- Ability to learn a new high level programming languages.
- Ability to learn more about Bluetooth and Arduino system.
- Ability to solve problem involving application, electronic circuits and programming.

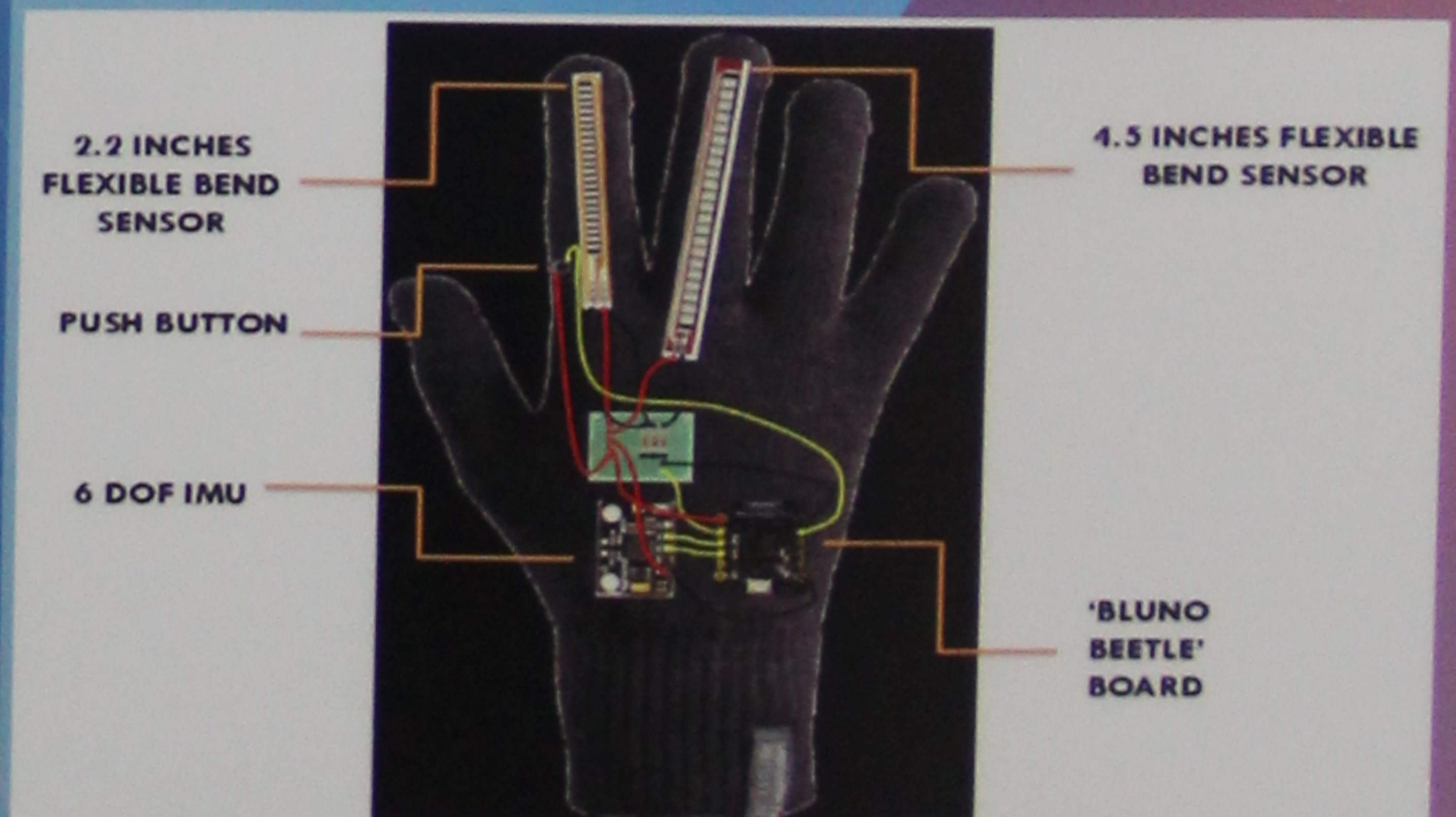
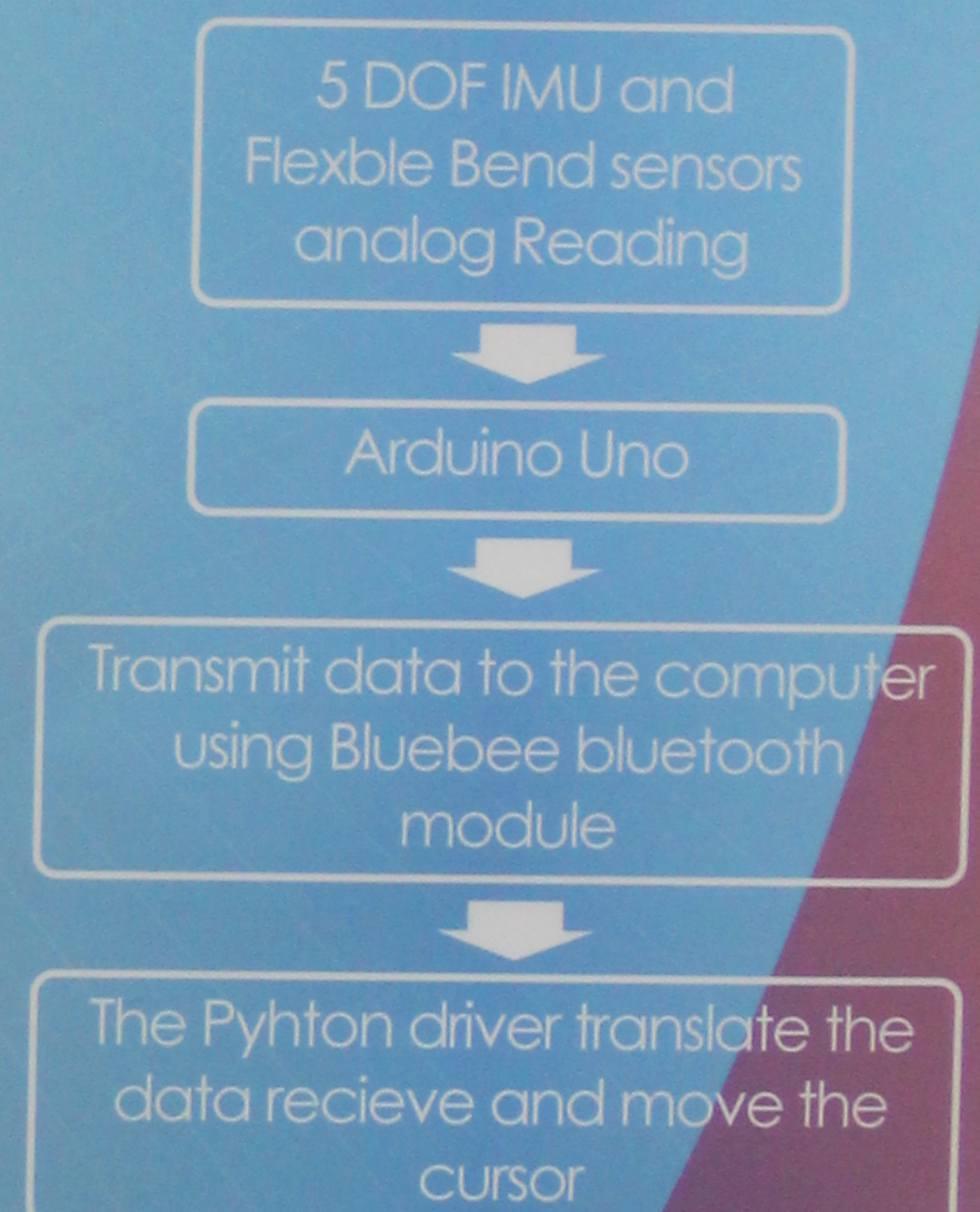
PROBLEMS STATEMENT

We are too depending on a mouse to ease the cursor movement. Mouse gives limited of movement. It needs spaces to be moves. The inspiration for this project is due to the motivation of finding a new way to control the cursor of the computer using other alternative ways. In this case, The Hand Gesture cursor.

RESEARCH SCOPE

This project will focus on creating a new type of interaction with our computers by using an Arduino microcontroller, Inertial Measurement Unit (IMU) which incorporates 2 x Gyro Sensor and a 3-Axis Accelerometer and a Bluetooth module, interface the component together and use C, Python language to create a program that can receive the data from the IMU and send the data to the computer through the use of Bluetooth module.

BLOCK DIAGRAM



EQUIPMENT LIST

Num.	Equipment	Quantity
1.	Arduino Uno Rev3-Main Board	1
2.	5 DOF IMU	1
3.	CYTRON Bluetooth Module	1
4.	XBEE Starter Kit without module	1
5.	Flexible Bend Sensor 4.5 Inches	3