1. Hi everyone! this video will demonstrate my ring gesture project that can recognize gesture from 3-axis accelerometer signals using the Dynamic Time Wrapping Algorithm.

2. Here is the first prototype with MCU, IMU, button, and Bluetooth module to transmit accelerometer value to the computer.

3. I am developing on python and let me introduce briefly the interface here.

4. If you want to record training data first you just type the name in this box and the new training gesture you type will be added in this list view. Then click to the record training data button and select which gesture you want to train.

6. After training data the program can recognize these gestures you trained before by click to the Record Testing Data button.

7. And it will be showed the result here.

8. This box plots the accelerometer value in real-time. This one display the record training data and this one displays the testing data to compare with training data.

9. Now let start demo. Here I will recognize 4 gestures first. First one is right, left, circle and square. Then let me train these gestures. And let check it.

10. Ok now test for left, right and now just check for the circle. Ok perfect!!

11. Then let add two more gestures: triangle and w. Ok let check it.

1. And for simulating I will using the ring gesture device to control ppt file.

2. Ok let try to control ppt file with command forward slide, backward slide, change to the full screen mode and quit the ppt program.

3. First I will train data. For the forward I will train data by right gesture, backward I will train data by left gesture, changing the full screen mode I will train data by circle gesture and the last one for exit I will train data by alpha gesture.

4. now just check it before control the ppt file.