CHAPTER 6

Conclusion

From the final results of the study, it can be concluded that the project can detect falls in humans, especially the elderly by calculating the acceleration value and the angle of inclination and then entering it into the algorithm formula in the program.

We have also researched this tool with several algorithms, namely the first using a complementary filter algorithm which is quite effective in receiving data. Due to the complementary filter formula, the data obtained is more significant because the formula in this algorithm aims to reduce noise on the accelerometer and gyroscope sensors.

Then the second we tried it using a fuzzy algorithm in our program. Then the results obtained if using this program can find out the movement of the elderly when tilted left and right, so that if the elderly will fall during activities that are suspected of falling, the sensor buzzer will immediately notify when the elderly are about to fall. But there is also a weakness when using this fuzzy algorithm, namely the tool becomes more sensitive / easier to sound if the elderly do left tilt / right tilt activities even though the elderly are doing normal activities but are considered to fall if applying this algorithm to our sensors.

Based on the conclusions described above, the following are suggestions given by future research :

1. For the suggestions for further research, maybe we can implementation the sensor and algorithm for get the level of data accuracy will improve

2. make the concept of a simpler tool so that it can be flexible when it will be used anytime and anywhere.

3. may be able to automatically connect directly to the gadget / smartphone. So if you fall, you will automatically call the call center like (hospital / people who will come quickly to help us immediately).