CHAPTER 6
CONCLUSION

So in conclusion, fuzzy mamdani here can help in making this trash can. Fuzzy mamdani makes it easy for users to know the waste capacity properly. Fuzzy mamdani can display one output from the 2 existing parameters, this of course makes it easier to monitor the full level of this trash can. The combination of the use of PIR sensors, ultrasonic and load sensors can also help this tool run properly. With a relatively cheap price, these 3 sensors can produce runs well too. It is evident from the testing of ultrasonic sensors and load sensors, both of which have good accuracy in processing data. Although good accuracy results are obtained on the load sensor, behind that there is a weight calibration process that takes a lot of time in data collection. So if you have more budget, you can use a higher quality weight sensor for better results. It can be seen from the comparison of 2 tables for fuzzy calculations, measuring object weight with manual scales and weight sensors has a rather far distance when compared to results from ultrasonic sensors. So this is the weakness of the weight sensor used in this tool. For ultrasonic sensors, it can be said that there are no obstacles because the data collection process can be said to run smoothly, ultrasonic sensors can detect distances well. But the weakness of the ultrasonic sensor here is, in measuring waste with a small size. The location of the ultrasonic sensor here is in the middle of the trash can and there is only one, so if there is small trash and its position is not in the middle of the trash can, its height will not be detected. So it is hoped that this trash can can help in improving waste management in an environment with existing features.