ABSTRACT

Garbage is an object that has no use and sometimes becomes a problem for people in their lives.Almost all cities in Indonesia also have the same thing in processing garbage even though the media has provided for the public to be able to put their waste in the trash can. Glass shard trash is one of them. Many of the janitors are often injured by glass shards that are not treated properly. Therefore I have ideas and ideas in overcoming the above problems by designing a glass waste detector. The purpose of this tool is to be able to sort out every glass shard that enters with other inorganic waste.

To realize the tool in this study, a photodiode sensor module was used with the help of 5mm orange LED lighting as a sort of glass shard. The ADC (Analog Digital Converter) value is used as a parameter in determining whether the incoming waste is glass or not. And that includes the function of the photodiode sensor in reading the ADC value of any light absorption obtained from the object that is illuminated by the orange LED. In this test, it was found that the trash bin system was made to sort glass shards with a predetermined setpoint value of ADC, which is 72. Which is where if the photodiode sensor module reads an ADC value of more than 72 including glass waste and if the read ADC value is less than or equal to 72 then the waste that is read is inorganic waste.

Keywords : Garbage, Smart Trash Can, Glass Sensor