ARDUINO AUTOMATIC TWO-FUNCTION FLOOR CLEANER

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ABSTRACT

There are areas in some places that are not clean and people never clean it because either people are busy in another task, or it can be a restricted area, or it is too dirty for janitors to clean it. Using the product, the researchers tested its effectiveness based on the appearance of the floor after using it.

This product was constructed by a set of recycled plastic containers, which were cut and drilled, inside is the Arduino and its components to be able to function properly. With a room with 0.77 x 0.77 meters as control, the device was tested by powering the main unit and the vacuum and mop unit.

Based on the findings, the device got the appearance score of an average of 96. In comparison to manual cleaning, the average score is 73. The t-test result shows that there is a significant difference ($t = 7.73 > T = 2.16$) between the device and the cleaning tools.

This study showed that when the researchers compared the device vs. manual cleaning based on the appearance after cleaning, the product can clean tiled floors effectively. However, the product can't clean rough floors effectively as the wheels are slow and do not have enough horsepower for that to work.