

ATD: AUTOMATIC TISSUE DISPENSER

LIRA ANGELA M. MARAÑA

<https://orcid.org/0000-0003-0403-0197>

maranalira1@gmail.com

Looc Integrated School

Looc, Calamba City, Laguna, Philippines

Corona Virus is the prime problem the world is facing today. It spreads through droplets that increase the risk of transmission in public restrooms. Toilet seats are the most bacteria and virus-laden place that could transfer the virus to the objects present in the washroom. Consequently, toilet paper dispensers can have more than 150 times more bacteria because of the transference of bacteria and viruses. In line with this, the researcher made an Automatic Tissue Dispenser (ATD) that dispenses a tissue in a specific range of length designed to prevent hand contact with the device, which works by waving a hand in the designated area. It is beneficial to the community since it limits contact, making public restrooms safer. ATD is battery-operated and was programmed using Arduino Uno. The dispenser is made of wood and plastic plank and is designed to mount on walls. The ability to dispense, ability to dispense following the program, were tested. The results were determined using the average weighted mean. The result showed that the device was able to dispense upon hand detection and according to the program. Also, the blade was able to cut the tissue with a 17.6inches up to 17.8inches range of length. It was concluded that the Automatic Tissue Dispenser is a dispenser that can dispense a tissue with the said length upon hand detection without delay.

Key words: Arduino Uno, Automatic tissue dispenser, Dc motor, Dispense, Dispenser, Sensor, Toilet paper