

DESIGN AND CONSTRUCTION OF AN AUTOMATIC SAND SUGAR MEASUREMENT TOOL BASED ON ARDUINO MEGA 2560

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ABSTRACT

The development of the times requires every job to be done efficiently. With the help of technology, work can be collaborated to be completed precisely, quickly and efficiently. One of the collaborations is automatic sugar dosing. This system uses an Arduino Mega 2560 microcontroller as the brain of the tool to be able to regulate the MG90s servo to open based on user input and close based on readings from the HX711 sensor and load cell. The ultrasonic sensor also provides input for the Arduino so that it can be forwarded to the LED to turn on and the LCD as an interface. In the mechanical design of the tool using holo and galvanized plates. In testing the success rate of the tool was 99.44%.

Keywords: *Arduino, Servo, HX711, Ultrasonic, Load Cell*