ABSTRACT

To monitor children's growth and development, parents must routinely take their children to the posyandu where in the posyandu activities there are stages of measuring the height and weight of toddlers. This activity is a core activity to determine the growth and development of toddlers and indications of stunting. However, there are several problems found in the field, including that posyandu cadres often experience difficulties in the calibration process and reading the results of measurements made by babies which are difficult to maintain, resulting in inaccurate recording of the results of the measurements. Therefore, research was carried out to design and create a product to help streamline the process of height and weight measurement activities carried out at the posyandu, where the results obtained were more accurate than the results of previous measurements so that it was easier for posyandu cadres to record the results of the measurements. In the design of this tool, it uses a load cell sensor which is used to measure the weight of toddlers, an Ultrasonic sensor to measure the height of toddlers, an ESP32 which is used to regulate the control of the circuit and RFID as input processing which then results from the measurements displayed on the LCD display. This research method is the design, creation and implementation of a moving average program for the measuring device. The contribution of this research in supporting science and technology is the implementation of the industrial revolution 4.0, especially in the field of public health. The output of this research is a measuring tool for posyandu digitalization. Apart from that, the results of this research will be published in the SINTA accredited scientific journal.

Keywords: *weight measuring instrument, height measuring instrument, posyandu digitization.*