

DESIGN AND CONSTRUCTION OF ARDUINO-BASED PAPERNAME AND COIN NOMINAL DETECTION DEVICE WITH SOUND OUTPUT FOR THE BLIND

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ABSTRACT

Money is a tool used for buying and selling transactions and has been used by everyone. This makes money an important item for everyone, including people with disabilities such as the blind. The difficulty of the blind in seeing and identifying money can cause money to be exchanged, taken incorrectly, and even deceived when making transactions. Therefore, a tool is needed to make it easier for the blind to identify the nominal value of money. This study aims to design a tool that can be used to detect the nominal value of banknotes and coins. This tool uses a TCS 3200 color sensor to detect the color of banknotes based on RGB and uses a load cell sensor to detect coins based on the mass of the coins, which are then processed by a microcontroller with a sound output of the nominal money. The overall test results of the tool in detecting all banknotes and coins produced a success rate of 91.67%

Keywords: *Money, Blind, TCS 3200 Sensor, Load Cell Sensor.*