

DESIGN AND DEVELOPMENT OF AUTOMATIC ANDROID-BASED COFFEE DRINK VARIATION MAKING MACHINE

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ABSTRACT

Coffee drinks are in demand by almost all groups of people. Along with the high busyness of society, everything is demanded to be instant and efficient. In general, in making coffee we have to prepare coffee grounds, hot water, sugar, cream, spoons, and glasses. After that we pour coffee grounds, sugar and creamer into a glass and boil water. After the water boils, then we pour hot water into the glass and then stir until evenly distributed. So the author makes an Android-based automatic coffee maker, so that the results of making coffee are easier and can also help human functions to make coffee drinks automatically which of course can save time and energy. The results of the first test of the servo motor have worked as expected and the infrared sensor has worked well. Second, based on testing, the glass stepper motor is known that the accuracy of the stepper angle is 98.96%. Third, in the water filling test, an accuracy value of 99% was obtained and the stirrer was working properly. Fourth, in the beverage ingredient testing of each 5x test, the arabica accuracy value is 99%, liberica accuracy is 98%, robusta accuracy is 89%, sugar accuracy is 92% and creamer accuracy is 100%.

Keywords: *Coffee machine, Beverage Ingredients, Servo Motor, Stepper Motor, Water Filling and Stirrer.*