

# **DESIGN OF AUTOMATIC COFFEE BEAN ROSTER BASED ON ARDUINO MICROCONTROLLER**

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## **ABSTRACT**

*In the process of making coffee, namely roasting, this process is the process of processing coffee beans from raw to ripe. This processing is usually a lot of processes from the traditional way to the modern way. The process of roasting coffee beans in a modern way, tools used with certain specifications can not maximize roasting. Likewise with the traditional method, the traditional method is also less than optimal in the level of coffee maturity, the limitations of the coffee bean roaster. From the above shortcomings can be overcome by using a temperature sensor (DHT11), DC motor (direct current), Arduino Uno microcontroller, and heating element. The temperature sensor (DHT11) functions to read the temperature of the coffee bean cooking room so that the level of maturity of the coffee beans can be seen from the temperature in the cooking room. A DC motor (direct current) is used to stir the coffee beans, so that the coffee beans can be cooked evenly and not scorched. The Arduino Uno microcontroller functions as an automatic controller that can be programmed using the Python language to turn on or turn off the heating element, DC motor (direct current), and the fan automatically. In the manufacture of this tool, there are three levels of maturity of coffee beans, namely small, medium, and hard. From the level of maturity, it can be seen from the temperature during the maturation process of the coffee beans.*

**Keywords :** *Mikrokontroller, Arduino uno, Direct Current, Small, Medium, Hard*