

MEASUREMENT OF WATER CONTENT OF COFFEE BEANS BASED ON THE MIT INVENTOR APPLICATION

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ABSTRACT

This research aims to design and develop a tool for measuring water content in coffee beans using the MIT App Inventor platform. This tool is designed to help coffee farmers measure the moisture content of coffee beans accurately and efficiently, which is an important factor in determining the quality of coffee beans. The methods used in this research include designing hardware with humidity sensors, as well as developing an application based on MIT App Inventor which is capable of displaying measurement results in real time on Android devices. The research process begins with designing and manufacturing a measuring instrument consisting of a humidity sensor, microcontroller, and wireless communication module. After that, an application was developed in MIT App Inventor to receive data from sensors and display the water content of the coffee beans. Trials were carried out to ensure the accuracy of the tool in measuring water content by measuring the response to receiving data from the microcontroller and testing the effect of distance and obstacles. The test results show that the developed coffee bean water content measuring device has a high level of accuracy and is reliable. The MIT App Inventor-based application also allows coffee bean moisture content to be measured quickly and efficiently.

Keywords: *Water content, coffee beans, MIT App Inventor, android application.*