

ABSTRACT

The development of IOT (internet of things) technology is a technology that connects hardware with the internet so that it can be controlled remotely by sending data from IoT devices to the server. The vertical jump measurement system at the KONI Bandung Building is still manual and there is no automatic measurement tool. Therefore, a real time vertical jump measurement system is needed at the KONI Bandung building.

To solve the above problems, a real-time vertical jump measurement application is needed. The design of this tool will be carried out using NodeMCU, HC-SR04, I2C sensors, and making applications using the MIT App Inventor.

The result of the Final Project has been completed is the implementation of the Vertical Jump measurement tool and application, and the final project is able to handle manual vertical jump measurements, the performance of this tool and application in the form of a measurement accuracy of around 80%. Applications and tools have a delay, delay or waiting time of 1 second for applications, 10.5 seconds delay for height display and 1.5 seconds delay for display of jump height on the tool. But functionally this application is feasible to be implemented for athletes in Gedung KONI Bandung.

Keywords: *NodeMCU, HC-SR04, I2C.*