

ABSTRACT

Automation systems or tools are developing very rapidly from initially equipment or systems that work manually to those that work automatically, this automation is needed to reduce the use of time and human intervention so that it helps users in using a tool. As an example of the process of developing rice cooking, olden use a pot that worked manually and needed human assistance to do the process. In the process of cooking rice using a pot it has shortcomings in the removal of steam which causes the process of cooking rice for longer and the cooking process which must always be observed so the rice does not burn.

After that the rice cooking technology developed again using a rice cooker, with using a rice cooker users no longer need to observe the process of cooking rice until cooked like using a pot because the rice cooker will automatically warm up when the rice is cooked. But when using a rice cooker, users still have to manually put rice and water into the rice cooker. This final project designs and adds the rice cooker feature that is available at this time. With this tool users can enter rice and water automatically, controlling the volume of water so that the composition of the water is more precise. Water volume control uses a Flowmeter sensor as feedback from the control system. Besides being able to enter rice and water automatically. This tool is equipped with the Internet of Things (IoT) so that users can control this tool remotely

The result of this final project is the average accuracy of the flowmeter sensor in calculating the volume of water that enters the rice cooker is 97.76% and the average error is 0.97%. Then the average additional power needed when the rice cooker is implemented in an automation system is 0.07125 KWh.

Keywords: Automation, Rice Cooker, Flowmeter, IoT.