

ABSTRACT

Awareness of the importance of clean water resources and the efficiency of their use encourages the development of more efficient advanced technology. This study aims to design an automatic clean water tap based on time quota and arduino for MAN Insan Cendekia student dormitory bathroom, Palu City. This system is expected to avoid wasteful use of clean water due to negligence in closing the water tap by limiting the water flow with a time quota with three stages. The water tap will open the water flow when the user presses the quota button one, two or three times to select the time quota and will automatically close when the selected time quota is met. The time quota set in this study is specifically for a 60 liter bucket in the MAN Insan Cendekia student dormitory, Palu City. The research method used is an experimental method by developing software with Arduino, designing mechanical designs, and testing. The results of the study indicate that the automatic water tap system developed successfully functions as expected. This system is able to open and close the tap according to the set time quota accurately and control the water flow automatically. In addition, this system is also considered practical and easy to use. The implementation of this system is expected to contribute to saving the use of clean water in the MAN Insan Cendekia environment of Palu City.

Keywords: clean water, automatic water tap, time quota, arduino