

ABSTRACT

The role of technology today has been widely implemented in various aspects of human life. In its implementation, technology can now be integrated with objects around so that it makes work and move easier. One of the uses of technology that can facilitate humans not far from the habits that are done is reflecting so that a smart mirror is made that can act as a personal assistant that makes it easier to get information and manage time while improving the appearance of the self. This mirror has an important role for people with busy schedules such as providing information news, current weather, making activity notes and alarm reminders.

This system utilizes the Raspberry Pi 3 Model B+ as a microcomputer used to process input data so that user can get the desired information. The system comes with and IR Frame so the mirror can be used touchscreenly, also comes with an alarm reminder feature that can be added via TelegramBot, and can take notes of activities in real time. The system can also turn off and turn on lights through mirror. In addition to being controlled through a screen, smart mirror can also be controlled by voice using Google Assistant.

Based on the results of implementation and tests conducted showed that the sensitivity of the screen for the accuracy of beats and repetitions on the same panel was about 98,4%. The percentage of screen sensitivity detects the number of event reaching 100 %. Furthermore, the intensity of sound that the system can respond to is about 50 – 70 dB with a maximum distance of 3 meters for a 100 % success response with an average process time of 1,01 seconds, the sound sensitivity of less than 50 dB cannot be responded to by the system. Then obtained an average delay of testing the remote light control system of 3,37 seconds.

Keywords: *smart mirror, touchscreen, personal assistant, IR Frame, controlling.*