

ABSTRACT

Humans increasingly demand a more practical and more efficient lifestyle. This lifestyle is very helpful for people with disabilities, who need electronic equipment without having to move from their place.

Voice recognition is the process of moving words that are spoken and then converted into digital data. The application of speech recognition can be found on Google Home Mini. With this technology, it was tested the implementation of a system with the voice recognition method using Google Home Mini combined with the IoT platform so that it can connect electronic equipment through voice requests.

The test results show a distance of 0-100 cm gives 100% accuracy to a distance of 900 cm unable to receive voice commands, 40dB-70dB voice competency testing has a 100% success with a delay of 4.05 seconds, sound testing gets 100% at 40dB-50dB with a delay of 3.87 seconds, and 70% at 50 dB - 60dB with a delay of 4.14 seconds, and 13.33% at 60dB - 70dB with a delay of 5.24 seconds, the human speech recognition test produces 36.6% with a delay 4.11 seconds for ages 9-12 years and 86.6% with a delay of 4.14 seconds for ages 12-18 years, and 66.6% for ages > 18 years with a delay of 3.97 seconds, system function testing results 100% with a 4.02 second delay.

Keywords: Voice Recognition, Audio Processing, Google Home Mini.