

ABSTRACT

Hearing is one of the human sensory systems that is very important to establish human communication in everyday life. If a person has hearing loss, it will have difficulty in communicating with others, especially to the environment around him. To find out if someone is suffering from hearing or digestive disorders, it is necessary to examine using an endoscope. The purpose of writing this final project is to facilitate the examination of ENT (Ear, Nose, Throat) efficiently, the selection of the system to be developed through the results of qualitative and quantitative analysis tables that the authors have made in accordance with the required criteria. From the results of the analysis and the purpose, the authors decided to create a portable endoscope designed to be used by people independently, especially the elderly, so that they can perform ENT examinations periodically without having to visit a hospital or clinic. The system will be made on a portable endoscope that the patient takes pictures with an endoscope camera, then the image data is sent to the raspberry pi for the acquisition and reconstruction process, after which the image will be forwarded to the website. On the other hand, the temperature sensor will work to take the patient's room temperature data, then the temperature data obtained will be sent to the cloud via ESP32 and the final result will be displayed on the website. The final test results on the portable endoscope stated that this portable endoscope can be operated properly.

Keywords: portable endoscope, hearing loss, THT.