

## **ABSTRACT**

The bed is one of the essential needs of man. Until now, almost all the beds in the world are created as ordinary manual bed; unable to move. Especially in the hospital, a lot of the bed can only move by dragging / twisting a round handle that is usually located at the patient's bedside. It takes time and effort because of excessive rounds usually handle these very difficult and tough to play. Therefore, it is a tool in the form of the patient's bed by using a push button that has integrated gearbox dengang and relay that will make the bed move according to the commands we give to the pushbutton. The design tool is manifested in a final project entitled "Design Build Settings image Beds Patients Using Hand Signals".

In this final project made a bed using a pushbutton. Push button is very commonly used because these tools are easy to learn and understand because the functions and how it works is very simple. The working principle of this device is when the push button on the press that has been filled with such programs through a series of relay which will then trigger the DC motor to move the bed up or down according to user commands.

Power used is 12 Watts. In this tool also measured subjectively by using MOS method. From the analysis of the MOS, the data obtained for the benefit of the tool is 3.63. For the average opinion about the ease of operation of this instrument is 3.97. While the average opinion about the design of this tool was 3.57. Based on ITU-T MOS value of P800 belonging to the overall performance of the instrument system baik. Secara bed has shown results in accordance with the design of the head and the legs can be moved up and down on command the user wants.

**Keywords:** Push button, relay, DC motor.