

## ABSTRACT

*Infrared therapy is a therapeutic tool that has the function to reduce fatigue in the body due to excessive body muscle contraction. Before giving the frequency of infrared therapy depends on the purpose of therapy and response from patients. Infrared therapy itself is very useful to facilitate blood flow, and to vibrate water molecules in the blood.*

*Then made an infrared therapy device equipped with 3 selection modes, namely, with infrared light irradiation media and also has been equipped with a safe distance in the irradiation process, the second and third are equipped with a choice of maximum therapy time of 10-30 minutes to function to choose the duration of the therapy process. In addition there is also the selection of switches and dimmers that are used to regulate how much the intensity of the light emitted by the lights .*

*After making the measurement process, we get an error value on the timer measurement from the selection switch Low, 10 minutes (0.04%), 15 minutes (0.07%), 30 minutes (0.05%), Medium, High, and Dimmer switches, 10 minutes (0.56%), 15 minutes (0.09%), 30 minutes (0.05%). And the measurement of distances namely, 10cm (0.015%), 20cm (0%), 30cm (0%), 40cm (0.05%), 50cm (0.04%), 60cm (0%), 70cm (0.02%).*

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**Keywords:** *infrared therapy, distance, timer, error*