

## ABSTRACT

*Infrared therapy is one method to help overcome the problem of pain and stiffness in the muscles. Before the discovery of the method, ancient massage techniques widely used in the area of pain and fatigue, so it took a further treatment of the problem.*

*Based on the above issues then made an infrared therapy device with infrared light irradiation media and is also equipped with a safe distance in the process. It aims to ease the burden on the patient because you no longer need the massage that feels cumbersome and displays measurements in character LCD display after the whole system testing tool .*

*After making the measurement process, the measurement error values obtained 15 min timer for 0.04%. While the value of the measurement error on the distance sensor 10 cm of 0.2%, 0% 20 cm, 30 cm by 0.04%, 40 cm of 0.01%, 50 cm of 0.01%, 0.02% 60 cm, and 70 cm at 0.04%. From that % error this device can be used.*

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*Keywords: Infrared therapy, Distance, Error*