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FINAL REPORT

WIRELESS TELEVISION HEADPHONE

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ABSTRACT

This Wireless Infrared Headphones project are an attempt to increase the audio listening pleasure of the users of this system, by eliminating the need for a wire or cord from the audio device to the listening device. Wireless Infrared Headphones will be able to play or transmit the audio form many devices such as laptop and television. Besides that , this headphone will be in good use during night time in order to avoid disturbing others sleeping. In this project, a pair of wire was replaced by an invisible infrared light to transmit the audio signal. These headphones consist of two main parts which are transmitter and receiver. In the transmitter part, 2N4401 and 2N4403 transistors were used in order to amplify the audio input. To transmit the audio, we used 940 nm IR LEDs 5mm which can transmit the audio up to 6 meters. For the receiver part, IR phototransistor will accept the audio signal and then once again the audio signal were amplified before it can be heard through the headphones. In addition, the receiver was powered up 9 V battery while the transmitter connected directly to the television. The usage of infrared in this project are because it have many advantages. Infrared is well known for its immunity to electromagnetic interference. Moreover ,the usage of infrared gives higher security where in case of headphone, the audio will not leak to any other devices .

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