

IR Remote

An IR (Infrared) remote is a handheld wireless device used to control electronic appliances via infrared light signals.

Working Principle:

It emits modulated infrared light (typically at 38kHz) from an IR LED when a button is pressed. This light is picked up by an IR receiver in the target device.

Types:

- TV remote
- Universal remote
- Custom IR remotes (Arduino compatible)

Applications:

- Remote control for TVs, fans, and ACs
- DIY projects with Arduino
- Wireless triggering of circuits

Advantages:

- Wireless control
- Energy efficient
- Simple protocol

Disadvantages:

- Line-of-sight required
- Limited range
- Prone to interference from sunlight



Fig : IR Remote