

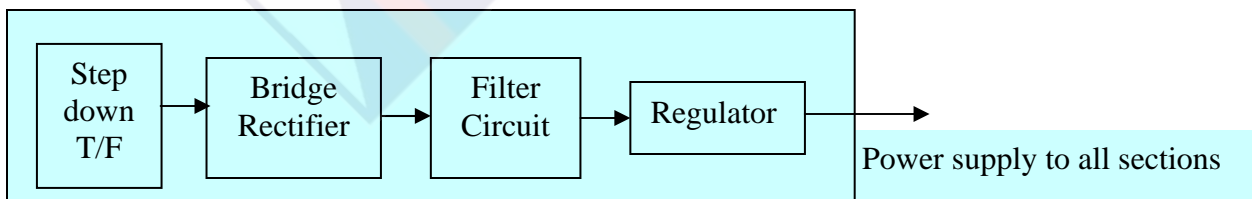
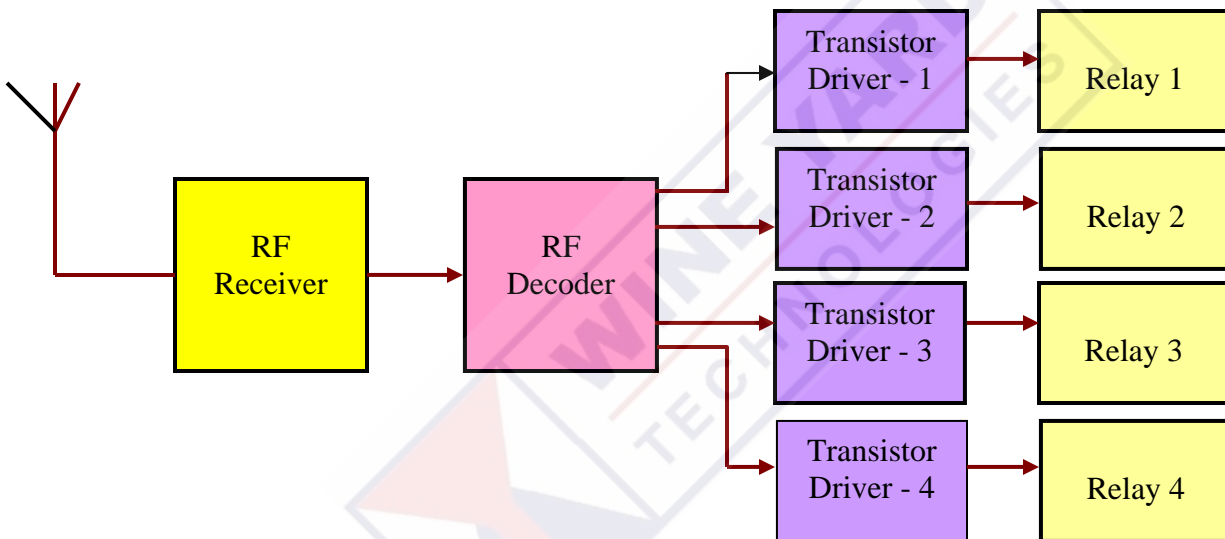
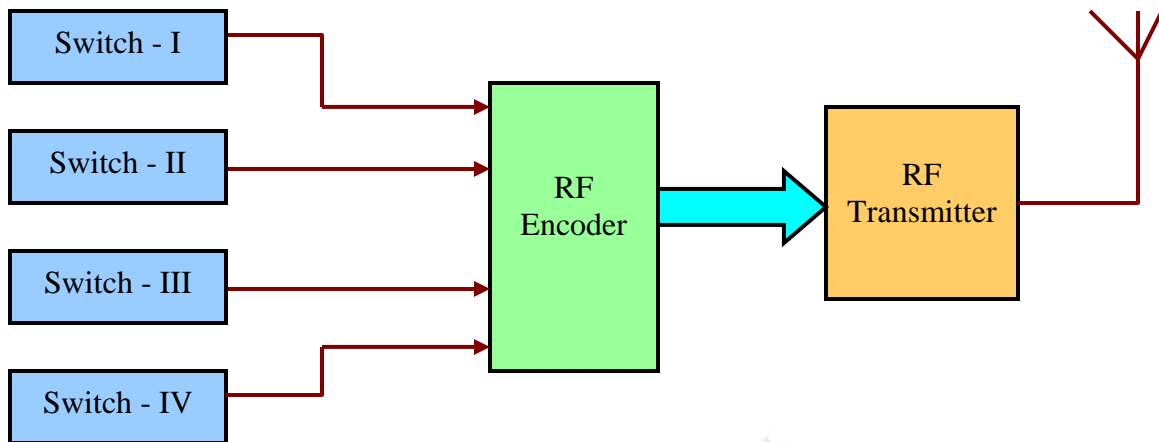
Radio Frequency Based Remote Industrial Appliances Control System

Controlling industrial / home appliances is a very interesting and useful project. This project is designed to control up to four electrical appliances. This project used popular RF encoder and decoder IC's.

Four Switches are connected to the RF Encoder. This encoded data is transmitted through a RF transmitter module. In the receiver side, the RF receiver module receives the encoded data and decodes using an RF Decoder. This decoded output data is given to transistor drivers. Relays are driven using these transistor drivers. Up to 7A load can be connected to these loads.

In this project 433 MHz RF transmitter and receiver modules are used. These are ideal for remote control applications where low cost and longer range is required. The transmitter operates from a 1.5-12V supply, making it ideal for battery-powered applications. The transmitter employs a SAW-stabilized oscillator, ensuring accurate frequency control for best range performance. The manufacturing-friendly SIP style package and low-cost make the STT-433 suitable for high volume applications.

This project uses regulated 5V, 750mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/18V step down transformer



Advantages:

Highly sensitive

Very low noise

Low cost and reliable circuit

Can transmit up to 10 meter

Can handle heavy loads up to 7A

System can be switched into manual mode whenever required

Applications:

Home appliance control

Hotel lights / fans control

Shops and showrooms

Industrial Applications

Electronic Toys

