

WIRELESS ROBOT USING DTMF
FREQUENCY

- ① DIPAK KUMAR BHAGAT
- ② KAUSHAL SINGH YADAV
- ③ PRAFULL CHATURVEDI



ABSTRACT

Dual-tone Multi-frequency (DTMF) signals are used in touch-tone telephones as well as many other areas such as interactive control, telephone banking, and pager system. As analog telephone lines are converted to digital, researchers became interested in digital DTMF detectors.

There are many digital DTMF detecting algorithms, but most of them do not comply with the related International Telecommunications Union (ITU) and Bellcore recommendations or are not suitable for real-time implementation.

Remote operation of devices without the limitation of distance is possible by the telephone lines all over the world. Because our land line telephone can be used to transmit digital data as well as voice is transmitted. Although the telephone line is intended to transmit voice signals, the network providers use it to send digital data also, mainly for sending the incoming numbers to the subscriber and other codes for call metering etc.

Here we used this technology to transmit various digital data to control a number of devices installed in a remote place. The project works on the very popular coding technique known as DTMF coding. In this the digital data is first converted to DTMF code which is transmitted to the line. In the receiver end the DTMF signal is decoded by a decoder to corresponding digital data. All mobile phones and land line telephones keypad are DTMF generators for their corresponding digit. So the DTMF coding is very easy. This technology is available in mobile phones also.

This project consists of one microcontroller and DTMF decoder attached to the MOBILE PHONE head phone out. The mobile is configured as auto answering mode; which attend the call and can receive DTMF signals which is transferred to the microcontroller through head phone output. Then after operate the lock motor attached the system according to the sent data.