

TWO-WAY

INTERCOM

MINI PROJECT-1

TE-7
ELECTRONICS AND TELECOMMUNICATION
C-BATCH
GROUP-1

<i>NAME OF MEMBERS</i>	<i>ROLL NO.</i>
<i>Minal Parmar</i>	<i>43</i>
<i>Malika Hafiza Pasha</i>	<i>44</i>
<i>Umera Pasha</i>	<i>45</i>
<i>Rakshith Poojary</i>	<i>49</i>

TWO-WAY INTERCOM

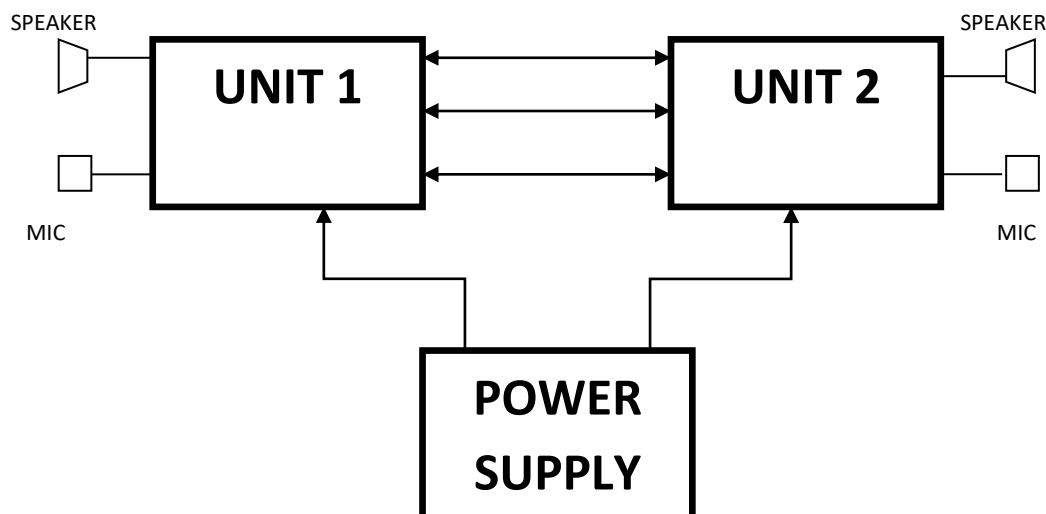
GENERAL DESCRIPTION:

This inexpensive two-way intercom provides simple way to communicate in two ways i.e. send a signal and receive it.

ABOUT THE CIRCUIT:

The circuit is made using IC555 and IC386. IC555 is a timer IC and IC386 is a low power audio amplifier. The circuit is designed in two parts (one for receiver and other for sender).

The circuitry of one side is shown in the circuit diagram, The output of one unit is given to input of other. The block diagram of 'Two-Way Intercom' is shown below,



The both units are given a common power supply here. Separate power supply may also be given.

WORKING OF THE CIRCUIT:

When switch S1 is pressed, IC555 gets triggered. Hence IC555, which is connected in astable mode acts as a tone generator or oscillator. These oscillations generated at output (pin3 of IC555) are given to bypass input of IC386(pin7).

The sound signals generated due to communication are received by the condenser mic connected at audio input(pin3) of IC386. These signals are amplified by audio amplifier(IC386). This amplified output generated at pin5 of IC386 is then given to the loudspeaker through coupling capacitor. We may mute the unit by pressing switch S2.

The two units are connected using shielded cable to avoid noise from interfering into the communication system. Capacitors also help in avoiding the mixing of dc voltages with the signals.

Thus when one person speaks he can hear his voice from the speaker of his unit, also the person with whom he was communicating is able to hear his voice. Thus a two way communication is established.