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**LAPURAN AKHIR PROJEK DIPLOMA**

**TITLE : HI-FI INTERCOM**

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## ABSTRACT

These projects are inspiration for communication system. The intercom system can called intercommunication system. This system can be defined as an audio-frequency amplifier system that provides two – way voice communication between two or more locations, which are using high frequency, and in the same structure.

Each station contains a dynamic loudspeaker that also serves as microphone. The amplifier can be at a station, or each station may have its own amplifier. Connection between stations can be made buy wire or carrier signals travelling over electric wiring in the building. It also widely used on ships and large aircraft. In other words, an option on many business phone system which allows you to use an abbreviated dialing sequence to react another telephone connected to the same Communications System and it also called “Hi-Fi Intercom”.

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## 1.0 INTRODUCTION

HI-FI Intercom is a project of connecting three IC's.

The first IC and second IC is 555 Timer. The 555 timer is a versatile low-cost IC specifically designed for precision timing application. It also can be used in monostable multivibrator a stable a stable multivibrator and schmit trigger applications. The third IC is an audio amplifier.

### OPERATION OF THE CIRCUIT

The circuit for the Hi-Fi Intercom has a CALL facility to call someone in another room. This circuit also uses a condenser microphone for superb performance. The circuit has a simple operation. If you want to speak to someone in another room or neighboring house, switch S1 to CALL position and apply power. Immediately the speaker in the other room starts beeping. After the receiver in the room is pick up, S1 of that circuit should be turned to CALL position momentarily to enable you to know that the receiver has been picked up. Now switch S1 to speak position to start the conversation.

Terminals marked X and Y go to the speaker in the room. Similarly terminals Z and Y of the circuit of the other room are linked to A and B. Since a condenser mic is used, the sound is free of distortion. The circuit can be installed in a toy telephone with mic at the mouth piece, a speaker at the ear piece.