



AC MOCK-UP SYSTEM

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DECLARATION

“No portion of the work refer to in the dissertation has been submitted in support of an application for another degree or qualification of this or any other university/institute or other institution of learning.”

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Abstract

Developing a mock up system for an AC split unit was the particular task we had to perform. By a mock up split unit the task meant that a near replica of the split unit minus the actual hardware be built so that an understanding of daily usage of the system be understood. In order to simulate an AC's working we took into account how an AC works the various inputs available on a remote control and how it triggered various responses on the receiver end. We went through various companies split unit's manuals to get a feel of the various components of an AC. Structurally we divided the mock up into two systems one the remote control and the other the receiver. The receivers units included an LCD display, a blower fan, compressor motor, wanes and a buzzer that needed to be controlled through IR signals sent at unique frequency to bring about desired changes. In the remote control we also decided for an LCD display showing the various options for the user. We also upon research came to many findings the most important one being using PIC controller for both the receiver and remote owing to its special features of having a built in ADC and its ability to automatically configure an LCD. Micro C was the best available tool to program the device. In conclusion a mock up split unit that is used daily in our lives is something taken for granted and understanding its workings helps us in our understanding of the engineering behind the machine.

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