

**MJR 2000**

**Interim Progress Report**

Group 22

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Advisor Signature x \_\_\_\_\_

Group Members Signatures x \_\_\_\_\_

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The details of the project that have been implemented to March 9, 2001 are as followings. The first week the group began examining the MC13135 chip. The first task was studying the Op Amp Gain and Phase versus Frequency diagram. It tells and shows how the currency flows. The diagram shows that when the current decreases from the Op Amp, the frequency will increase.

From the Phase versus frequency diagram, it provided the detection of the changing with the phase in respect with the frequency. When the phase increases the frequency decrease. By examining these diagrams it provides the fundamental and the information on how to implement the circuit. Next week will examine the Recovered Audio versus deviation for MC13135.

Week 2, the group continue on examining the MC13135 chip. The research of the graph recovered audio versus deviation shows resistors are required to produce certain recovery. By observing the recovery audio versus deviation graph, the team found that the higher the resistor, the higher recovered audio. This fundamental issue will provide the standards of what MJR 2000. The chip will provide 455 kHz of frequency and the resistor will be at 47k ohms to meet the standard requirement.

Week 3, the group had a conference meeting with advisor Yu-Dong Yao. We were trying to settle down on what parts that will be requiring to implement this device. The problem the team encounters is the expense that needs to be used. The group is deciding with Dr. Yao's idea on this situation. Also, we were deciding on where we can buy the parts and what is application to our use.

Week 4, the group found a location to purchase the materials and parts for the final implementation. The design and theory approach on the project had been researched. The final project is to implement the design. The parts were found in newark.com, this website provided many parts for designs and prototypes. It sells many different gadgets that are needed for different types of design. The team recommends the website to other groups because we think it is a fantastic commercial site for everyone.

Week 5, the group decided on purchasing the parts from the site newark.com. The parts that will be ordered are as follows:

Stock No.

95B4351      MC13135DW      24 Pin Wide Body SOIC

07F2898      MC13136DW      24 Pin Wide Body SOIC

These are the receiver that is going to be ordered. The group is still deciding the parts for the cover and buttons.

On the 7<sup>th</sup> week the group is still waiting for the parts listed below to come in.

The number of parts that were ordered was as follows.

6 x 95B4351    MC13135DW      24 Pin Wide Body SOIC

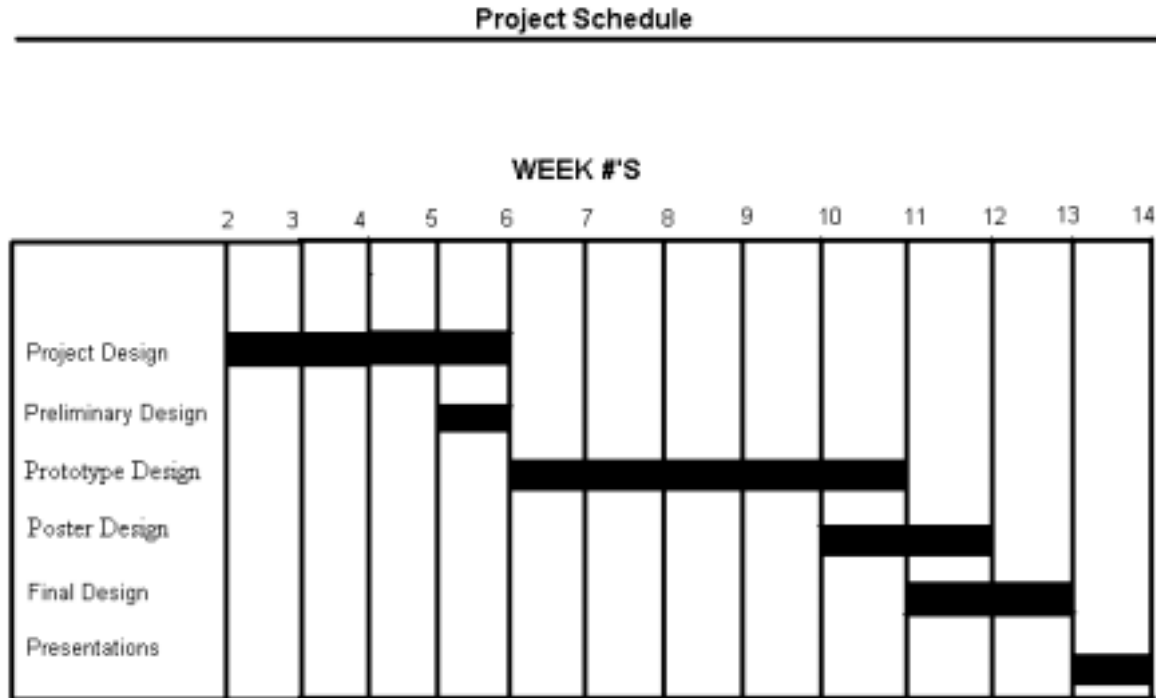
6 x 07F2898    MC13136DW      24 Pin Wide Body SOIC

These are the receivers that are going to be use to assemble the box. The group is having some problem on deciding the parts for the cover and buttons, there are limited number of cases that we can use for this design. Still researching for a suitable case and button that can be use on this project. Within these short time we obtain many progress that will enhance the final project. The budget and Gantt chart is provided to estimate the financial and time frame of the project.

## Financial Budget

Industrial project	Cost
Labor	\$90 per hour
Materials and Parts:	
2 Circuit Boards	\$10 each
5 receivers	\$5 each
1 transmitter case	\$10 each
10 transmitter buttons	\$10 each
Test equipment	\$100
Documentation	\$100
Travel, hotel accommodations and meal	\$4000
Support staff	\$4000
Rent, utilities, overhead	\$150 per month

## Project Schedule



There are no expected costs that are required to successfully complete the project from this point forward because the parts are most likely remain the prices. The schedule of the project may have a slight change due to shipping and handling of parts and testing purposes.

On this day forward, group 22 will continue the intensive work on the project. In this short amount of time remained. The group will continue testing the device. The device is having some error on getting the receiver and transmitter to communicate perfectly. The group will continue its success in accomplishing the project.