**From:** Team F5

**To:** Dr. Sarah Oman

**Title:** Final Prototype Summary

**Date:** 12-11-2017

# 1 Prototype description:

With the help above given explanations and discussions about the feasibility of the design, a prototype of the design was made using woods and some sampling of the featuring instrumentations on the design was shown by simply making the lines with the help of a permanent marker. The pictures of the manufactured prototype in the workshop is shown below. Which show


*Figure 1 Isometric view of the prototype*

some English alphabets, door lock, numbering from 0,9, scale etc.

This is a general view of the prototype manufactured in the workshop. On both the side

seen in the picture we can see markings which are the specialties of the design. These marking are the electronics instrumentations for the kids which will amuse them as well as teach them in a fun way.

Another view of the prototype is shown in the figure 2. this picture shows a wall clock, a type of

*Figure 2 Other view of the porotype showing clock and door lock*

door lock etc. The labeling of the clock is done in such a way that the reader will know to read time as well as learn something about the math's basic rules like addition and subtraction.

The third picture of the prototype shows some basic information about the electrical instrumentation which are present in every house like an electric switch for the light and main control board in the case of emergency. By playing with these kids will learn how to turn on and off the electrical instruments like tube light or fan. They will also learn that in the case of emergency what should they need to do with the main control board.

*Figure 3 Side of the prototype showing electrical instrumentational controls*

# 2 Prototype Summary:

This project was the first initiative toward the education of mentally and physically disabled kids which are unable to get education with normal born. The purpose of the project was to revolutionize the education system of these special kids with the help of using different electrical and other component which are used the most in daily life. Different designs were taken under consideration in which a containment with different equipment and sensory board attached to the wall are the top examples. In this report, the feasibility of these different designs was checked and most appropriate design was selected. While selecting the design, the financial analysis was done, and availability of the material required to build the final product was checked. After that a prototype of the final selected design was made.

Most of the features of the final products can be seen in the prototype. Because of the limited resources and time, the instrumentations are shown with the help of a black marker which can be seen in the figure 1 & 2. The main features of the final products are that it has the trampoline placed inside of the square containment. The connections to the electrical and electronics systems are made inside the wall which was made of two sheets covering the wires and connections while showing the display on the front. This double sheet wall also provide safety to the students from the electricity. Another feature of this design is that the source of energy is placed between these walls which will ensure extra security to the kids.

It is noted that this design can be very useful for the learning of these special kids and it is just an initiative. With the similar designs like these, some of which are discussed in this report above, can help them a lot in learning make them independent in most of the life work. This can be a good step for their education as well.