Practicum Top 3 Ideas

Group 17

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1. Piggy Bank - group decided on the child's piggy bank for the practicum project

There will be different coin slots for quarters, dimes, nickels and pennies. Every time a coin is inserted into the appropriate slot a sensor will recognize this and count what has been inserted. An LCD display screen will display the current amount inside the bank which can be cleared/reset with a button. The atmega328 will control the LCD.

1. Morse Code Decoder

We will have a device that accepts input from a button in the form of morse code. The atmega328 will decode the morse and display it on an LCD screen.

1. Back up beeper

For cars that are outdated/not equipped with the back up rear view cameras or warning signals we will use a sensor that you can attach to the back of a car. It will produce a loud sound and light when the sensor gets within a certain range of an object. Additionally the light and sound frequency and intensity will increase as the sensor continues to move closer to an object. This is controlled by atmega328.

Conclusion: We chose the piggy bank because it sounded interesting to implement and had various challenges that all of has had not dealt with before. The piggy bank practicum idea can be easily divided into several components that can be easily split among the group. Additionally the piggy bank will not be so difficult that it would hinder our other lab projects and academic studies.