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EC 450

*Door Unlocking Mechanism*

**Intentions**

Our project is intended to accept a 4 digit code. It will prompt the user to enter a code. The input will refresh after an incorrect code is entered. Once the correct code is entered, an LED turns on, indicating a signal has been transmitted to the receiver circuit, which will then power a motor to unlock the door the system is installed on.

**In Practice**

In practice, our project accepts a code of 4 numbers, and continues asking until the correct code is entered. Once this has happened, the transmit LED turns on, indicating a signal is sent to a the receiver circuit. Ideally when the signal is low the motor will turn off but we had some technical difficulty shutting off the motor once it has been powered on. I work around in theory would be to turn of the receiver circuit once the user enters the room. Unfortunately the gear head does not play nice with the unlocking arm, so the arm will not be attached at the time of demo.

**What Happens?**

What you will see is a simplistic and intuitive enclosed case containing the sender circuit. The outside will have the LCD display with a prompt for the user to enter a password, the number pad, the switches for the batteries, an LED and two buttons. One button is force signal used for prototyping, which would ideally not be in the final product. The other is a reset button that allows the system to be used again after the correct code is inputted.