Arduino RFID Solenoid Lock

ECE 387 Group Project Proposal

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**Introduce**

When we enter the gym, the first thing is usually to find the locker and then lock the clothes and other things in the locker. Traditional key lockers are not very convenient. So, in this project I am going to design a RFID (radio frequency identification devices) lock system, which can open the locker with IC card or chip. Also, I am planning to design an app on the phone, using Bluetooth Module to connect the phone which can control the locker by the phone. In the end, the locker I design can open by two ways, one is using IC card, and if you forget to bring your IC card, you also can use your phone to open the locker.

**Possible Features**

1. This project uses rc522 to read the rid of the rfid card and compares it with the Id number of the program written in advance. If the comparison is successful, the locker open. The screen display and the and the recorded log from the tf card can be added if I have time.
2. An app will be designed to open the locker, in the end we can open the locker using the phone.

**Parts needed**

* Arduino UNO
* Relay Module
* Bluetooth Module
* RFID Sensor
* Solenoid Lock
* LED
* Buzzer
* Breadboard