EE/CS 120B Custom Project Proposal

Security System with a motion sensor and camera

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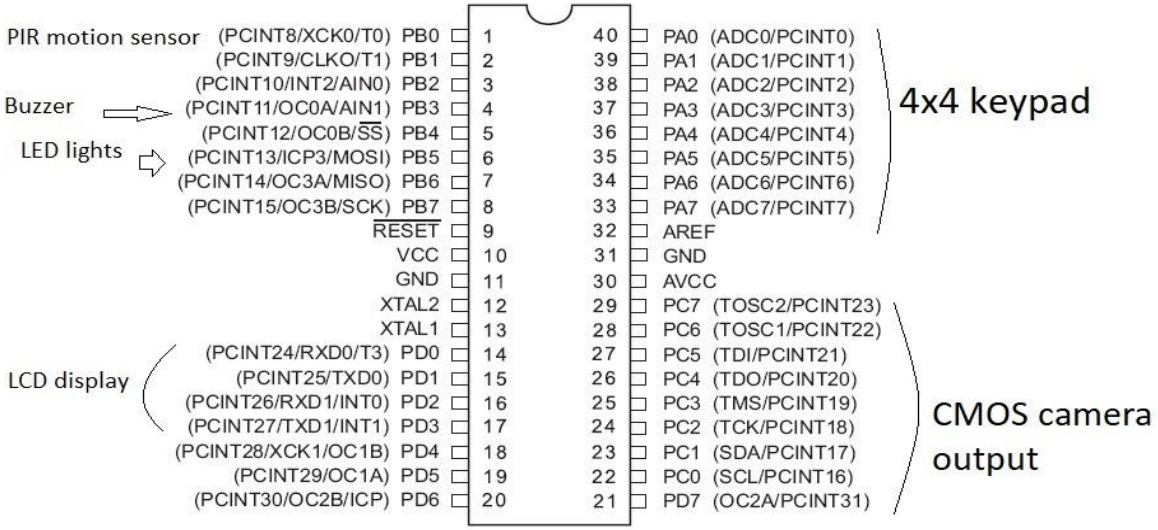
Feb 10, 2019

Introduction:

This is a security system that is password enabled, with a functioning motion sensor and a camera. If the wrong password is entered, the system is enabled. If motion is detected, the camera captures a 10 second video which is stored in an SD card that can be put in your computer, and a buzzer emits an alarm along with flashes to display an intruder alert. The system from there can be reset if the correct password is entered. If the correct password is entered, the motion sensor is not detected and displays a menu to the user to change the password and reset the system.

Components:

- **4x4 keypad** to enter password and navigate through menu
- **PIR motion sensor** that detects motion after the system is enabled
- **C3088 digital CMOS camera output** that is turned on when motion is detected that records videos or captures pictures
- **Buzzer** to emit an alarm signaling intruder
- **LCD display** that displays menus and acts as a password interface
- **LED lights** that flashes red to signal intruder alert



Complexities/Build-upons:

1. Using a PIR motion sensor to detect motion.
2. Using a camera output to capture pictures and store in an SD card.
3. Using an EEPROM to save passwords entered by the user.