Integrated Car Anti-Theft System (ICATS)

Team Name: SQAN

Team members:
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Customer: People who have cars
A car anti-theft system which senses a person entering the car and alerts the car owner via their cell phone. Pictures are taken and an audible alert is sounded.
Components

- Ultrasonic Sensors
  - Ultrasonic Range Finder – Maxbotix LV-EZ0
  - Senses proximity, one for the front seat and one for the back
  - Will activate other components only when system is armed

- PIC18F4620
  - 40 pin microprocessor
Components

- **Cell Module**
  - GM862 Cellular Quad Band Module
  - Activated by PIC when system in armed mode
  - Sends message to a cell phone: “Someone is stealing your car!”
Components

- Voice Chip
  - ISD25120P
  - Recorded message plays when alarm is activated. Runs two large 4Ω speakers.

- Camera
  - Once activated, will take pictures every few seconds at a set interval
Components

- User Interface
  - Includes LCD and Keypad
  - Allows user to input a 4 digit numeric code that arms and disarms system. Code stays in memory when power is off, and is able to be changed.
Possible Future Improvements

- Add a microphone inside the vehicle and expand the cell phone module capabilities
  - Pictures or video could be uploaded to the phone
  - A call could be placed once the alarm is activated, allowing the owner of the car to talk to whoever is inside the car
- Extending sensors to the outside of the car to sense if car is tilting