Security System Project Brief

It has been identified that the outside shed has been filled with a large amount of equipment. This shed will need to be secured to ensure that the equipment is made safe. The following requirement must be Met by the security system.

Sensors

Entry Points:

- Window
  - Must be able to know when the window has been opened and closed
  - (Optional) Make the circuit detect tampering e.g. Wire bridging exploit detection.
- Door
  - Must be able to know when the door has been open and closed
  - (Optional)As above add circuit protection against tampering.
- Roof
  - The cavity inside the room can be accessed through the roof at this point, without triggering the alarm.
  - A motion sensor or some other solution will have to be employed to resolve this.

Other Inputs

Other than the back end management the system will require user input.

- RFID/Keypad Panel
  - To place the system in a disarm state when on site
  - Keypad can be used for temporary access codes to guests

Outputs

In the close proximity of the activated alarm the following outputs will need to be activated.

- Siren
  - 190db
  - 12v
- Red LED Strobe
  - 500 Lumens
  - 12v

System Features

The system and management of the system must include the following features.

- Sensor Board
  - An embedded board that can be used to detect the state of the sensors and report them back through GPIO.
- 12 volt Output board
  - For use and activation of the Siren and Strobe
- The ability to alert specific users that any entry point has been breached
  - This can use email, Messaging, Web alerts e.g. Twitter API
- A management web portal. This will allow a user to Manage as much of the system as possible and have the ability to add future updates if required.

As long as all requirements above are met the project will be marked completed. More points will be given for a robust solution not just one that meats the requirements.