

The *Acme Surveillance* company is designing a new application that will be used to detect potential intruders by monitoring audio levels in a room. As a new employee, you have been asked to create a prototype to simulate how this would work. The system has the following requirements:

According to the sales department, the new device will support the following features:

1. **Self-destruct**
 - When the current sound level reading is higher than a predefined value, then a self-destruct will activate.
2. **Warning Light**
 - If there is less than 5 seconds between noises an LED will flash.

All sound level readings will be measured in decibels (DB).

Notes

- The software must be written in CSharp (C#).
- There is no need to interface with real hardware - all input can be simulated.
- The following criteria will be used to review your submission:
 - completeness,
 - coding style, and
 - whether or not it works.
- You cannot use the C# [event](#) keyword.
- Please list any assumptions you have made.
- No additional information will be provided.