

Home Security using motion sensing

A motion sensor project that detects motion and sounds an alarm accordingly. This software system is designed in C# and .net that constantly monitors an environment using a camera and sounds an alarm and even records images of the motion taking place as soon as it takes place. The project works as follows:

- The user first needs to set a security code.
- As soon as the user sets the code and activates the system, monitoring starts.
- The motion detector algorithm now constantly monitors the environment to check for any movement.
- As soon any movement takes place in front of the camera the alarm is activated.
- Now the system sounds its alarm and even takes photos of the motion taking place.
- The user now needs to deactivate the alarm by entering the security code again.

Software Requirements:

- Windows Xp, Windows 7(ultimate, enterprise)
- Visual studio 2010

Hardware Components:

- Processor – i3
- Hard Disk – 5 GB
- Memory – 1GB RAM

Advantages:

- The system is easy to install and is fully authorized.
- It can be used as home protection and security purposes for users.

- It is not an electronic based system so one can easily make use of laptops to install this system.
- It is cost-effective.
- It also saves the motions occurred so that they can be used as an evidence.
- It maximizes accuracy and reduces energy usage.

Disadvantages:

- It requires a lot of memory.
- The alarm has to be manually turned off by entering security code.

Applications:

The project can be used for home, office, school, shops etc for security purposes. It can also be used in crime prevention spot.

Reference:

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=5651631&queryText%3DCamera+Motion+Sensing+Project>

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