

Wireless Spectral Imaging System for Remote Sensing

**Mini Senior Design Project
Submitted by**

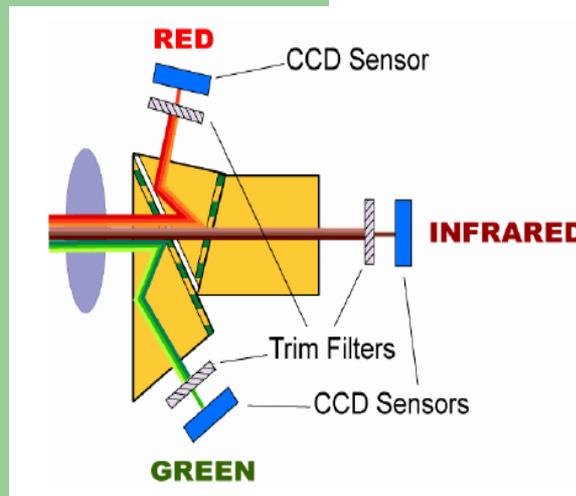
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Objective:

Use a spectral scientific camera to take remote sensing images for security applications

Advantages of spectral imaging over RGB color systems is that **DIFFERENT** materials with **SIMILAR** colors can be classified.



Requirements:

Imaging camera will have at least 3 spectral bands in the visible range of the spectrum

Imagery has to have at least 1024x1024 pixels and at least 12 bit depth

The system will acquire images every hour and send them to a central location.



Purpose of the system:

Being able to monitor a scene and store spectral images at a central location for historic and security purposes.

Images will later be analyzed using image processing methods such as:

- change detection**
- spectral classification**