

Multispectral Aerial Agricultural Inspection System

A farming company wants to continuously manage its land quickly and at a low cost using a system which is precise and accurate. It is looking for a system that can detect an array of issues from crop yield to nutrient distribution.

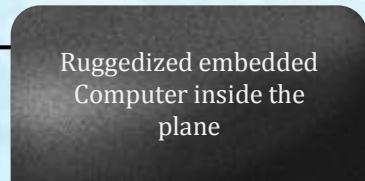


Solution:

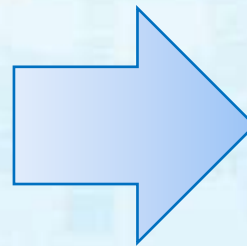
Five 9 megapixel GigE cameras are used in conjunction with specialized software to survey the area. The system can be used to spot check or inspect large areas. The cameras minimize smearing which is a common problem with type of application and the software is capable of handling the large input of signals from the five cameras without any interruption to the data stream.

The advantages of multispectral imaging are being able to quickly and cost-effectively inspect, measure, and assess crop health or damage in a more efficient manner. It allows you to see things that the naked eye would miss – such as soil compaction patterns, pests, uneven distribution of nutrients, irrigation problems, or wind damage.

This application is not only useful to farmers but can benefit insurance companies and agriculture consultants.



Computer with Windows 7 and specialized software processes images



Example of multispectral imaging:
Areas of red indicate vegetation that is damaged and may exhibit stunted growth or a potential loss in the crop's yield.

Cameras capture aerial imagery and transmits them to computer inside the plane