Project Overview

Background

The FarmBot project is an agricultural technology project started by Rory Aronson in 2011. Through robotic technology, various tasks can be completed on raised beds, such as precise sowing, clearing weeds, watering plants, etc. It is the first robotic technology used in A revolutionary breakthrough in agriculture.

In agricultural scientific research, a hardware device that can accurately monitor crops in an experimental environment is needed to support researchers in exploring various planting conditions, optimizing planting strategies, and improving research efficiency. It is particularly important to integrate hardware devices, such as thermal imaging cameras, into FarmBot.

In the consumer market, consumers are particularly interested in specially cultivated healthy vegetables, such as organic vegetables and other crops. Efficiently cultivating crops requires farm robots to integrate diverse hardware facilities to accurately feedback effective information to growers.

Therefore, integrating thermal imaging cameras into FarmBot is of great significance to promote the development of agricultural scientific research and meet the needs of consumers and growers.

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Dr. Nir Lipovetzky uses this platform to research the development of new agricultural sensors at the University of Melbourne. This project will try to integrate thermal imaging cameras into the farmbot on the Parkville campus and use network technology to manage the device.

Thermal camera-FLIR AX8

FLIR AX8 is a product provided by Teledyne Flir. This product integrates camera and thermal imaging. The advantage is that it is compact and easy to install. This product supports automatic analysis and alarms, and is compliant with Ethernet/IP and Modbus TCP standards, and can share monitoring results to a programmable chip.

Navigation Links

Here are quick links to various sections of the project for easy access:

General Information

- Project scope
- DO-BE-FEEL list
- Goal Model & Personas
- Final Presentation

Sprints

- Sprint 2
- Sprint 3

Technical Documentation

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- 🔧 Technical Details