

# Vertical Farming Monitoring Wireless Telemetry System

Industry: Agriculture

## Summary

### Customer Challenge

Vertical farming is the production of produce in a vertical manner using smart technology systems. Automated mechanics are used to pick up and move the products, thus using less human involvement and possible contamination. A wireless force measurement system is needed to monitor the robotics that pick up and move the produce to their next destination of the packaging process.

### Interface Solution

Interface suggests installing SPI Low Capacity Platform Scale Load Cells, along with WTS-AM-1E Wireless Strain Bridge Transmitter Modules, in the center of the platforms of the robotic lifting system that move around the produce. The WTS-AM-1E's wirelessly transmit the data collected from the SPI's to the WTS-BS-1-HA Wireless Handheld Display for multiple transmitters, and the WTS-BS-6 Wireless Telemetry Dongle Base Station when connected to the customer's PC. Results can be displayed, logged, and graphed seen in real time.

### Results

Interface's load cells and Wireless Telemetry System successfully detected and monitored the produce platform for their robotic lift system, and can now be navigated to the next step of their packaging line.

## Materials

- SPI Low Capacity Platform Scale Load Cells
- WTS-AM-1E Wireless Strain Bridge Transmitter Modules
- WTS-BS-6 Wireless Telemetry Dongle Base Station with supplied Log100 software
- WTS-BS-1-HA Wireless Handheld Display for multiple transmitters
- Customer PC or Laptop

## How It Works

1. The SPI Low Capacity Platform Scale Load Cells and WTS-AM-1E Wireless Strain Bridge Transmitter Modules are installed in the center of the platform on the lifting mechanism.
2. The produce is slid onto the lifting mechanism.
3. The produce weight is detected by the SPI's, and the WTS-AM-1E's wirelessly transmit the data to both the WTS-BS-1-HA Wireless Handheld Display for multiple transmitters and the WTS-BS-6 Wireless Telemetry Dongle Base Station with supplied Log100 software on the customer's PC. Data can be displayed, logged, and graphed.

