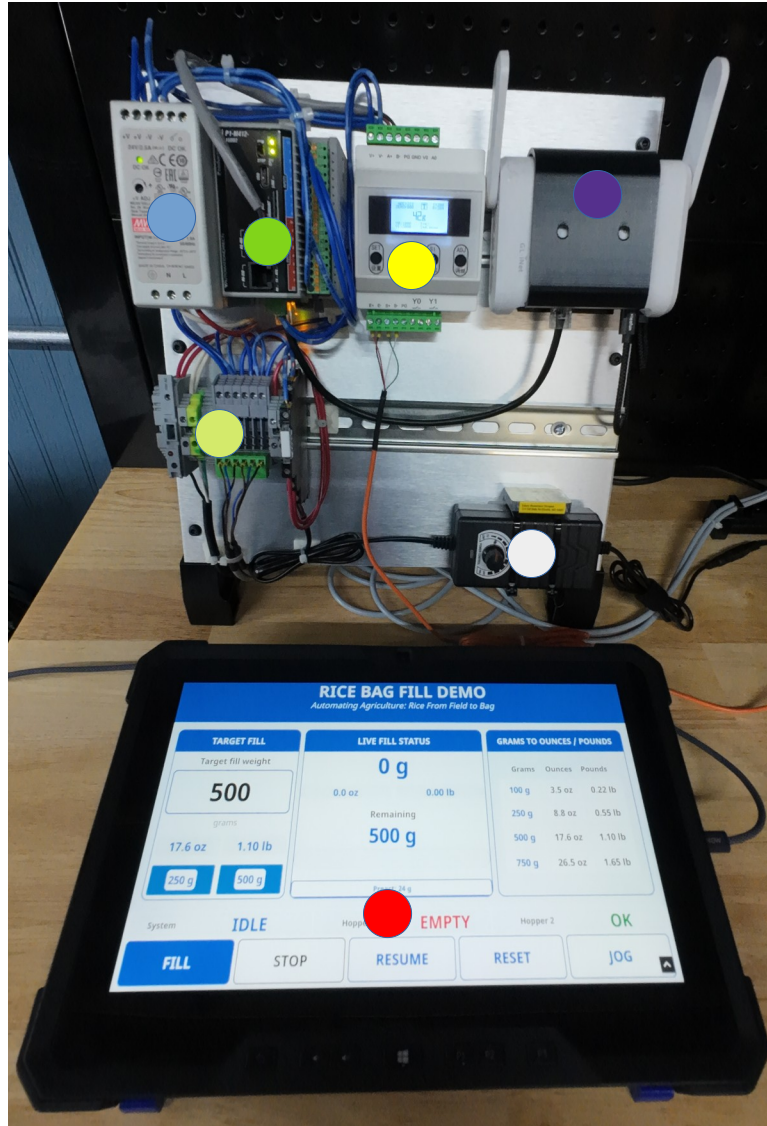


Inside an Automated Control System

Explore the technology that measures, thinks, communicates, and controls the Rice Bag Fill Demo.



⚡ Power Supply

Provides 24-volt DC power to safely operate the control system.

🧠 PLC (The Brain)

Programmable Logic Controller

The PLC is the "brain" of the machine.

It:

- 👁️ Reads sensors
- 🧠 Makes decisions
- ⚡ Controls motors and other devices
- 📡 Communicates with the touchscreen

"Just like your brain receives information from your senses and tells your body what to do, the PLC does the same for the machine."

📶 Wireless Access Point

Creates a secure Wi-Fi network so tablets, laptops, and other devices can connect to the HMI without cables.

⚖️ Weight Measurement

Converts the load cell's tiny electrical signal into an accurate weight reading for the PLC.

Did You Know?

The load cell produces only a few millivolts—far too small for the PLC to read directly. The amplifier boosts and converts that signal into an accurate weight measurement.

📱 Touchscreen Control Panel

HMI (Human Machine Interface) + Industrial Computer

Displays the process in real time and lets the operator start, stop, and control the machine

🔧 Wiring Connections

Terminal blocks provide organized, reliable connections between the power supply, PLC, sensors, and field devices.

⚙️ Conveyor Speed Controller

Motor Speed Controller (PWM Controller)

Adjusts the speed of the conveyor motor, allowing the PLC to control how quickly material moves through the system.

RiceBot 5000 Resources



These are the electronics that make RiceBot work!

