



Success Stories



Elevating Agricultural Automation

A Triumph in North America with Winmate's 12.3" Rugged Panel PC

Background

In the heart of North America's agricultural landscape, a partnership between a leading agricultural equipment manufacturer and Winmate Inc. has yielded a groundbreaking success story. Through the integration of Winmate's 12.3" rugged panel PC, a new era of efficiency and precision has been ushered in for electric plowing machines, transforming traditional farming practices. The agricultural equipment manufacturer, recognized for its commitment to innovation, sought to revolutionize the plowing process with the help of cutting-edge technology. As the industry faced increasing demands for sustainable and automated solutions, the company aimed to create a modern plowing machine that would enhance productivity while minimizing environmental impact.

Core Product

[W12IM3S-GCB1](#) - 12.3" ARM A53 G-WIN GC-Series Front IP65 PCAP Panel PC

Main Challenges

The objective of the project was to design and build an electric-powered plowing machine that leverages automation and data-driven decision-making to optimize soil preparation. The machine needed to offer precise control, real-time monitoring, and ease of operation to ensure that farmers could achieve consistent and efficient results.

Why Winmate

Winnate's 12.3" rugged panel PC emerged as the ideal solution to power the control center of the electric plowing machine. Known for its durability and reliability, the rugged panel PC was capable of withstanding the harsh agricultural environment – from dust and dirt to temperature fluctuations – while providing a seamless interface for operators.

- **Rugged Design:**

The rugged panel PC's robust construction allowed it to thrive in the challenging outdoor conditions encountered in agricultural settings.

- **Responsive Touchscreen:**

The high-resolution touchscreen interface provided intuitive and precise control, making it easy for operators to interact with the machine.

- **Real-time Data:**

The panel PC facilitated the collection and analysis of real-time data, enabling operators to adjust plowing parameters on the fly based on soil conditions and other variables.

- **Remote Monitoring:**

With its connectivity capabilities, the panel PC allowed for remote monitoring and support, enabling technicians to diagnose issues and provide assistance without being on-site.

The implementation of Winmate's 12.3" rugged panel PC brought about several significant benefits:

- **Enhanced Efficiency:**

The automation features of the plowing machine, powered by the rugged panel PC, optimized the plowing process, reducing manual labor and time required.

- **Precise Operation:**

The touchscreen interface enabled operators to set precise plowing depths and patterns, resulting in consistent and uniform soil preparation.

- **Environmental Sustainability:**

By switching to electric power and utilizing data-driven precision, the machine contributed to reduced fuel consumption and minimized soil disturbance.

- **Maximized Yields:**

With improved plowing accuracy and consistent soil preparation, farmers experienced enhanced crop yields and quality.

The success of this North American agricultural project underscores the transformative impact of Winmate's 12.3" rugged panel PC in the realm of automation and precision farming. By embracing cutting-edge technology, the agricultural equipment manufacturer has not only advanced its own capabilities but also elevated the efficiency and sustainability of the entire industry. This success story serves as a testament to the power of collaboration between innovation-driven companies and technology solutions providers like Winmate Inc.

Application Diagram



Related Products



Winmate W12IM3S-GCB1

- 12.3" ARM A53 G-WIN GC-Series Front IP65 PCAP Panel PC
- 12.3" 1920 x 720 panel with projected capacitive multitouch screen
- ARM A53 Quad Core 2.0GHz CPU
- Front IP65 for protection against water and dust
- A true flat, easytoclean front surface with edgetoedge design
- Support Android or Linux operating system



Winmate L156AD

- 13th generation Intel® Processor Family – Raptor Lake Processor
- 15.6" 4K Panel resolution with PCAP touch
- Optional discrete Nvidia Graphic card
- Dual battery with hot-swappable design for whole-day-work
- Anti-glare technology for sunlight readability
- Magnesium alloy enclosure with double injection for drop protection
- IP65 waterproof and dustproof
- Utilizing Nvidia T1000 and A2000 Graphic Cards