

eSMART Systems

Revolutionizing Material Handling with
Precision and Efficiency



> **Pick-to-Light**

> **eKanban System**

> **RFID Tracking**



PHOENIX MECANO

Pick to Light

Pick to Light for Manufacturing & Warehouse Automation

- Sensors indicate working steps and defects visually
- The software can be used to simply call up and enter new jobs
- Simple installation and commissioning
- Zero defects and higher productivity
- ERP/WMS/OMS Integration
- Integration with 3rd Party Tools
- Alerts & feedback
- Customized Reports



Pick to Light Accessories



eKanban Systems

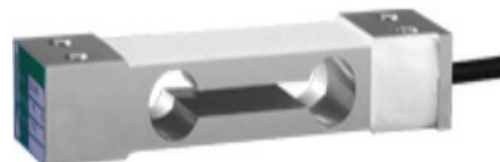
Pick-by-Weight for Order fulfillment

Smart Rack will have bin system resting on electronic weighing sensor. Bin will display real time qty. All such smart weighing sensors will have software connectivity with the control panel. Control panel will be integrated with ERP system for fetching item code details, calculating consumption pattern to revise safety stock across the quarter. eKanban real time qty will trigger Replenishment order from ERP to line side and PO to vendor as per safety stock. If line side replenishment is not fulfilled, ANDON feature will escalate for immediate attention through email and red flasher on the rack.



Load Cell

- > Capacity : 3gms to 1 Tonn
- > Encasement / Material – Aluminum Alloy
- > Operating Temperature - 0°C to + 60°C
- > Precision - (0.017% & 0.02% FSO comprehensive error)
- > Excitation Voltage: 9 VDC - Maximum 12 VDC
- > Safe Load : 120% of Rated Capacity
- > Ultimate Load : 150% of Rated Capacity
- > Non-Linearity : $<\pm 0.03\%$ of FSO (Full Scale Output)
- > Creep (30 minutes): $<\pm 0.025\%$ of FSO
- > Zero Balance : $<\pm 1\%$ of FSO
- > Input Resistance: 400 ± 10 ohms
- > Output Resistance: 350 ± 5 ohms
- > Insulation resistance: Above 5000 Mega ohms
- > Temp. Compensation: -10oC to +40oC
- > Temp. Effect on zero & span: $< 0.03\%$ FSO/10oC
- > Cable: 4mm, 0.42 mts





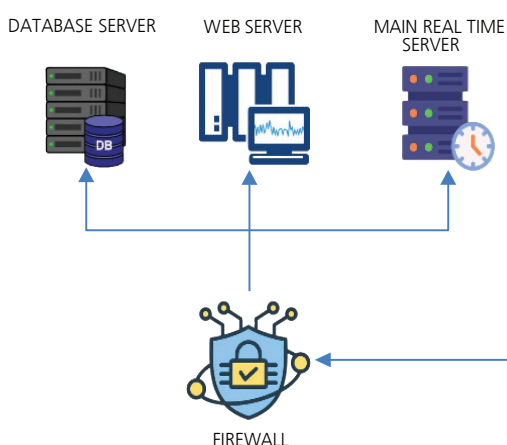
RFID Tracking

RFID Integration

Real-Time Tracking: Equipped with cutting-edge RFID readers, eSMART KART provides seamless real-time tracking of inventory.

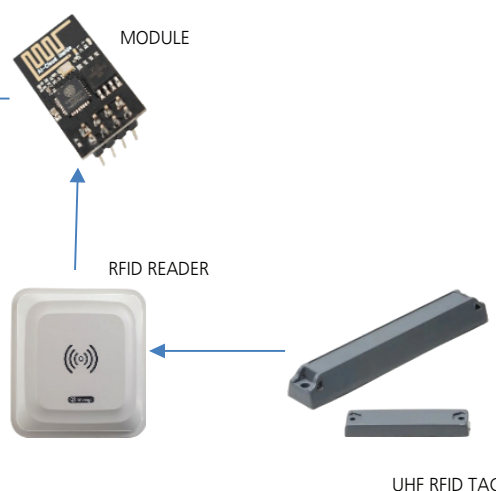
Automatic Identification: Instantly identifies and verifies items without direct line-of-sight, ensuring accurate order fulfillment and inventory management.

System Architecture



VEHICLE MOUNTING INTEGRATED RFID READER

- > Integrated RFID Reader single-channel fixed RFID reader
- > Supports RS-232, RJ45 and GPIO communication interfaces
- > IP67 Sealing with Material - Plastic + Aluminium Alloy
- > Input Voltage DC 9V – 12V & Standby Current < 30mA




RFID TAG

- > Dimensions - 150mm x 26mm x 16mm
- > Weight - 20gm \pm 2
- > Encasement / Material - ABS/PVC
- > Operating Temperature - 40°C to +85°C
- > Chemical Resistance - Resistant To Chemical
- > Solvent and Moisture
- > Shock & Vibration - MIL STD 810-G
- > Attachment - Adhesive, Magnets
- > Sealing - IP 68 E
- > Working Frequency - 860-960 MHz (ETSI), 902-928 MHz (FCC)
- > Standard Protocol - EPC Class 1 Gen2 (ISO18000-6C)
- > Chip Type - Alien Higgs-3 /4, Monza 4/4QT/5/R6/R6P, UCODE 7/8 chip
- > EPC Memory - Chip Dependent
- > Read Range with Fixed Reader - Up to 12m (Reader & Chip Dependent)
- > Read Range with Handheld Reader - Up to 5m (Reader & Chip Dependent)



Software Package

 Brilliant PCS™ Customer Focused	BASIC	PROFESSIONAL	ENTERPRISE
	2 Active assemblies/ workstations	4 Active assemblies/ workstations	8 Active assemblies/ workstations
User Administration	Yes	Yes	Yes
Recipe Configuration	Yes	Yes	Yes
Data import / export	Yes	Yes	Yes
eSMART BIN - PTL / RFID / WEIGHT	Yes	Yes	Yes
Windows Desktop Application	Yes	Yes	Yes
Mobile Interface	No	Yes	Yes
Web Interface	No	Yes	Yes
Replenishment	No	Yes	Yes
Data traceability	No	Yes	Yes
Analytics	No	Yes	Yes
API access - Third - party Connectivity	No	Yes	Yes
External hardware connection	No	No	Yes
Support			
Software updates	Yes	Yes	Yes
Access to FAQ's	Yes	Yes	Yes
Ticketing system	Yes	Yes	Yes
Email support	Yes	Yes	Yes
Set-up support	No	Yes	Yes
Remote support via Team viewer	No	Yes	Yes
Third level support by developers	No	Yes	Yes
User training	No	Yes	Yes
Customer - specific further development	No	No	Yes

Product Summary

Benefits

- > **Increased Efficiency:** Streamline material handling processes, reduce picking times, and improve overall throughput.
- > **Enhanced Accuracy:** Ensure precise inventory management and order fulfillment, minimizing errors and discrepancies.
- > **Reduced Labor Costs:** Automate repetitive tasks, reducing the need for manual labor and associated costs.
- > **Scalable Solution:** Adaptable to various industries and facility sizes, from small warehouses to large distribution centers
- > **Low Labour Cost:** Shorter time for order fulfillment, order accuracy, less error through operator assistance.
- > **Paperless System:** Assembly instructions, work orders, reports etc through system.
- > **System integrations:** ERP, WMS, OMS Integrations, Third party Tools integrations.

Applications

- > **Assembly Lines:** Light based Assembly Assistance systems
- > **Warehouses:** Optimize inventory management and order picking
- > **Distribution Centers:** Streamline sorting and shipping processes.



Head office and Manufacturing Plant



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