



SMART FIRE AND EMERGENCY



Introduction

Lingjack DiGiTaL's SMART Monitoring and Control System offers a SMART, Flexible, Customizable Product and Service Digital IoT Platform to enable Businesses to Create Value to their Customers/Stakeholders, Grow the Business, Maximize Operational Efficiency, Increase Productivity, Reduce Cost, Downtime and Labour.

We work with YOU to provide the best product and service platforms that meet your needs.

The first SMART monitoring and control system in the world to enhance the Fire and Safety aspect in a facility.

SMART Fire and Emergency

Lingjack's SMART Fire and Emergency ensures and enhances the Fire Safety of your office, house, warehouse etc critical premises using state-of-the-art wireless and IoT Technologies. It allows users to effectively monitor, control, manage and maintain your Fire Fighting and Emergency assets through a network of smart sensory and control nodes.

The SMART Presence feature provides high availability connectivity with a secure, fully mesh wireless network.

AnyTime, AnyWhere Full Monitor and Control of System Online with Secure Live Interactive Cloud-Based Dashboard. Enable rapid response in emergency situations.

Comprehensive Support Services (Monitoring, Alerts, On-site response) to cater to your support and maintenance needs.



Fire Alarm
Fire Extinguisher Missing, Leaked, Blocked
Fire Door Open/Close, Blocked
Sprinkler Activated, Water Leak
Temperature, Humidity

Exit and Emergency Lights Status
Stand-by Battery Testing
Remote Activation and Schedule Built-In-Tests



Environmental Control,
Indoor Air Quality



Operation Status of Critical Fire Fighting Assets





Key Product Features

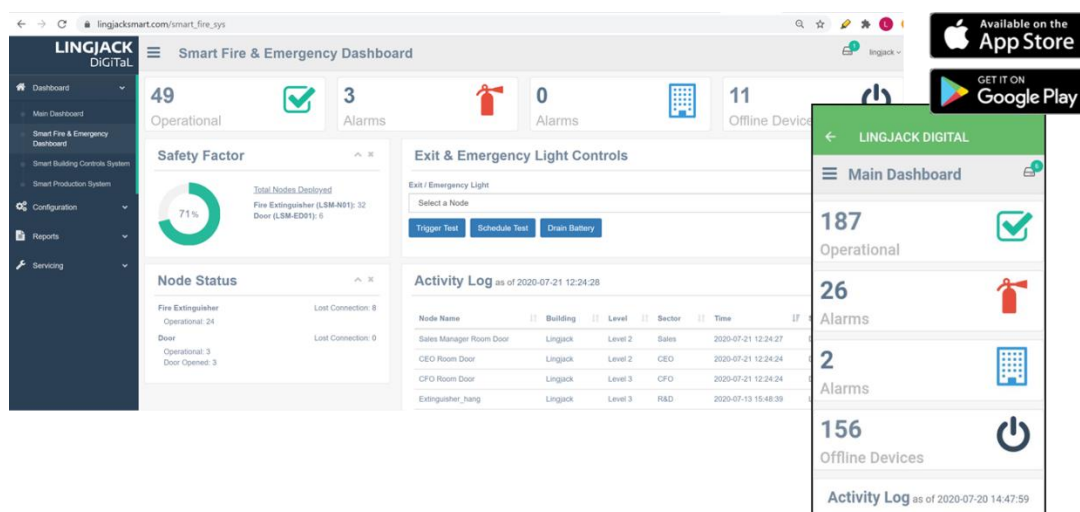
Non-Intrusive Implementation

- ✓ Maintain operational integrity of Customer's assets that are monitored and controlled.
- ✓ Does not involve expensive changes in existing systems.

- ✓ Easy to add new capabilities whenever needed.
- ✓ SMART Presence: Always Present, High Availability Connectivity with Secure, Fully Mesh Wireless Architecture.
- ✓ No more wires: Low power wireless technology, battery operated (~ 5 years with active battery status).
- ✓ Automatic and optimal link routing with intelligent re-routing in event of link failures.
- ✓ Supports up to 10,000 sensor nodes or devices per networks.

Wireless, High Availability & Secure
Flexible, Expandable, Customizable
Easy to Deploy Architecture

SMART DASHBOARD: AnyTime, AnyWhere, Live Interactive & Secure Monitoring and Control



- ✓ Secure with SHA 256bits RSA Encryption with Password Control.
- ✓ Interactive Graphical User Interface.
- ✓ Available on Web and Mobile App.
- ✓ Full Activity Log, Event and Alerts Management
- ✓ Remote Activation of Built In Test
- ✓ Maintenance Planning, Schedule Tests.
- ✓ Service History, Report Generation.

Independent Node-Level Logic Decision and Control

- ✓ Supports continuous operation with local logic decision and control within Nodes for critical systems.

Certifications, Compliance

- ✓ FCC approval.
- ✓ IMDA approval.
- ✓ ACMA Radio communication (Low Interference Potential Devices)
- ✓ Compliant - mesh enabled (2.4GHz, IEEE 802.15.4).



Key Specifications

Systems Configuration	Gateway	LAN, Wifi Internet Connecting Gateway
	Fire Extinguisher Node	Temperature, Humidity, FE Missing, Leaked, Blocked
	Platform for Fire extinguisher Node	Temperature, Humidity, FE Missing, Leaked, Blocked
	Emergency Door Node	Voltage, Current Monitor
	Temperature Humidity Node	Temperature, Humidity. Option: Sound, Light, CO2, Vibration
	Water Leak Node	Temperature, Humidity, Water Leakage
	Emergency and EXIT Light Testing Node	Temperature, Humidity, Light, Remote Automatic Testing of Light Output, Standby Battery
	7 in 1 Indoor Air Quality (IAQ) Node	7 in 1 Air Quality Sensor, CO, VOC etc
	Smart Dashboard, Live and Interactive Dashboard	Web & App based Dashboard for Monitoring and Control Iphone IOS, Andriod Based App
Communications	Topology	Mesh
	Frequency	2.4GHz Bluetooth 5.0, IEEE 802.15.4,
	Range	Typical Range (Line of Sight): Indoor 30m (max), Outdoor 150m (max)
Environment	Operating Temperature, Humidity	0°C to 55°C, 90% Relative Humidity
	Enclosure	IP 52
Power	Battery (except for Gateway)	Lithium Battery 3.7V, 8500mAh (~ 5 years battery live with active status monitoring)
 Gateway	Overall Dimensions, Weight	(L x W x H) ~ 82 x 56 x 19.5 mm, ~105g
	Processor, RAM, GPU	Broadcom BCM2837B0 quad-core A53 (ARMv8) 64-bit @ 1.4GHz, 1GB LPDDR2 SDRAM, Broadcom Videocore-IV
	Networking	Gigabit Ethernet (via USB channel), 2.4GHz and 5GHz 802.11b/g/n/ac Wi-Fi, Bluetooth : BLE 5.0
	Accessories	UK Adapter, Wireless Router/Data Router
	Power	Power Adaptor, DC



Key Specifications (cont...)

Fire Extinguisher Node



Overall Dimensions, Weight	(L x W x H) ~60 x 50 x 40mm, ~90g
Temperature Sensor	40°C to 125°C, Resolution: 0.01°C, Accuracy: +/- 0.3°C
Humidity Sensor	0 to 95% RH, Resolution: 1% RH, Accuracy: +/- 3% RH
Blockage Sensor	Blockage Detection: 0.6m to 2m

Applications

Fire Extinguisher Node with Smart Wall Bracket



- Missing Fire Extinguisher
- Fire Extinguisher Leakage
- Blockage

Water Leak Node



Accessories : Various length of leaking cable up to 5m



Emergency Door Node



- Open/Close Status
- Blockage

Platform for Fire Extinguisher Node



Overall Dimensions :
(L x W x H) ~ 140 x 255 x 35mm
Weight: ~1.36kg
Weight Sensor: Up to 20kg Load Max

Other Sensor Nodes

Sound Alarm Bell,
Carbon Dioxide, Carbon Monoxide,
Dust sensor PM2.5 Light module,
Vibration
(Additional Sensors can be offered at request of Customer)



Alarm Bell

Vibration



Key Specifications (cont...)

Relay Node



Emergency and EXIT Light Test Node



Temperature, Humidity Node



7 in 1 Indoor Air Quality (IAQ) Node



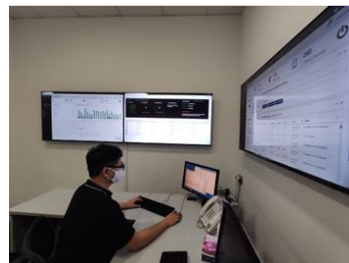
Overall Dimensions, Weight	(L x W x H) ~ 85 x 45 x 35 mm, ~ 90 g	
Connectivity	Multi-Functional and Multi-Purpose Configurable to support Multiple Analog, Digital, Discrete Connections	
Rated Load Connection	10A / 250 VAC, 30A / 30VDC	
Temperature Sensor	40°C to 125°C, Resolution: 0.01°C, Accuracy: +/- 0.3°C	
Humidity Sensor	0 to 95% RH, Resolution: 1% RH , Accuracy: +/- 3% RH	
Sensors (Additional Sensors can be offered at request of Customer)	Light Sensor (Standard for Emergency & Exit Light Test Node) Vibration Sensor Voltage, Current Sensor	
Control Features (Additional Controls can be offered at request of Customer)	Emergency and Exit Light Testing Node: Remote, Dashboard Activated, Testing of Lamps, Light Output, Standby Battery	
Overall Dimensions	(L x W x H) ~ 85 x 45 x 35 mm	
Weight	~ 377 g	
Environmental Sensors	eCO2 400ppm~2000ppm ±100ppm eCH2O 1ug~1000ug TVOC 0ug~2000ug PM2.5 5ug~1000ug ±10% PM10 5ug~1000ug ±10% Temperature - 40°C to 125°C Humidity 0~95% ±3%RH	



Service and Support

Standard and Premier Services

- ✓ Comprehensive Support Services (Monitoring, Alerts, On-site Response) to cater to your support and maintenance needs.
- ✓ Leasing and Maintenance Services.
- ✓ Standard and Extended Warranty Services
- ✓ After-Sales Services eg. Site-Servicing, Software Maintenance, Training, Spares.



About LINGJACK DiGiTaL

- ✓ Lingjack believes in Innovation. We believe that we can incorporate Digitalization and Technology in our operations and business. In 2017 we formed our own R&D team to conceptualize and develop technology products.
- ✓ Lingjack DiGiTaL was formed as an arm of Lingjack Engineering, with the objective to provide Total Solutions that leverage on Technology to deliver Value to our Customers.
- ✓ In 2019, we launched the first SMART monitoring system to enhance the Fire and Safety aspect in a facility in the world. We are also constantly working on AI, data analytics and robotics solutions to our Customers.

Request for a Demo, We Like to Hear Your Needs

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