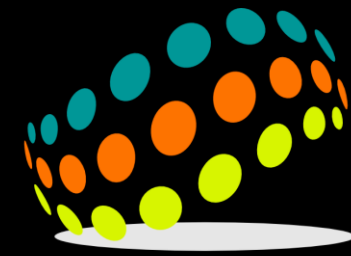


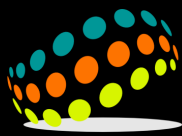
# RAMAC™

Solution Overview



**G-Matrix Systems**

Integrated System Design



# G-Matrix Systems

## Integrated System Design

**G-Matrix Systems** addresses the modern need for monitoring through a range of bespoke IOT communications solutions, from cold chain monitoring, to security and entry control, tracking, fluid measurement and more.

G-Matrix Systems is a **Full IoT Turn-key** solution provider and is completely network Agnostic

### CONTACT US

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Cell: +27 63 6999 586

## Our Core Business

### RESEARCH & DEVELOPMENT

Internal R&D for product enhancement ensuring G-Matrix is always ahead of the curve with future Technologies.



### RAPID PROTOTYPING

The G-Matrix Systems “Heart” is an all-encompassing device which allows for multiple sensors to be connected allowing rapid prototyping. This, together with our in-house 3D printers ensures prototypes are aligned with Customer expectations



### PRODUCTION

40 000+ GPS units pass through our Test jigs every month supported by the G-Matrix test data base and monthly SLA



"A Good company delivers excellent products and services.  
Great companies does all that and strives to make the world  
a better place"

*Bill Ford* - Executive Chairman of *Ford* Motor Company

## Our Services

- Electronic Firmware Development in right down to microprocessors
- Low Power Products – Sigfox, LORA, GSM, Low Power Radio, BLE, Solar powered, NB-IoT, RPMA, M-CAT1, MQTT Products.
- Labview Software Development
- Electronic and Mechanical Interfacing.
- Development on "Internet of Things" networks
- Integration on 3<sup>rd</sup> party Platforms
- Deployment of LPWAN networks
- Intensive research and development in Sigfox, Lora, BLE, Wi-Fi & GSM communication
- Management Systems for remote communication
- Development of smartphone application.

## Current Products

# RAMAC™

Remote Access Management and Control Systems

- Cold Storage Monitoring
  - Smart Location Button
  - Range Detector
  - Remote Lock Monitor and driver
  - Cable Theft Solution
  - Asset Tracker
  - Temperature Sensor
  - Power State Monitor
  - Tamper Proof Container Locks
  - Intrusion protection Sensors
  - Vibration Sensor
  - Magnetic Sensor
  - Power consumption and Battery monitor
  - Camera Pole Maintenance Monitoring
- RAMAC™ Portal is a ready to use online web-based portal, available to any customer
  - RAMAC™ App allows local device configuration, OTA Firmware updates, diagnostics and real time information of the device
  - RAMAC™ Cerebro is a consumer facing App which can be white labelled for our channel partners
  - RAMAC™ API allows for easy integration



**G-Matrix Systems**  
Integrated System Design

The **RAMAC™-Asset Tracker** monitors the remote movement of Assets and tampering of enclosures. The device is attached to the Asset and continuously evaluates the Asset for significant movement or magnetic presence. If significant movement is detected while the device is in the armed state it will send a movement status message. It will start tracking the movement by using the built-in GPS unit. The GPS locations are sent at 5-minute intervals and the device will continue to send GPS locations until movement stops.



### Low Power Consumption

IoT networks such as Sigfox and Lora allow the device to operate autonomously for up to 5 years.



### 3- Axis Accelerometer

The 3-Axis accelerometer allows the RAMAC- Asset Tracker enter an ultra-low power state yet still wakeup when movement occurs.



### Magnetic Sensor

Once the enclosure is opened the device will transmit a Tamper Alert



### GPS

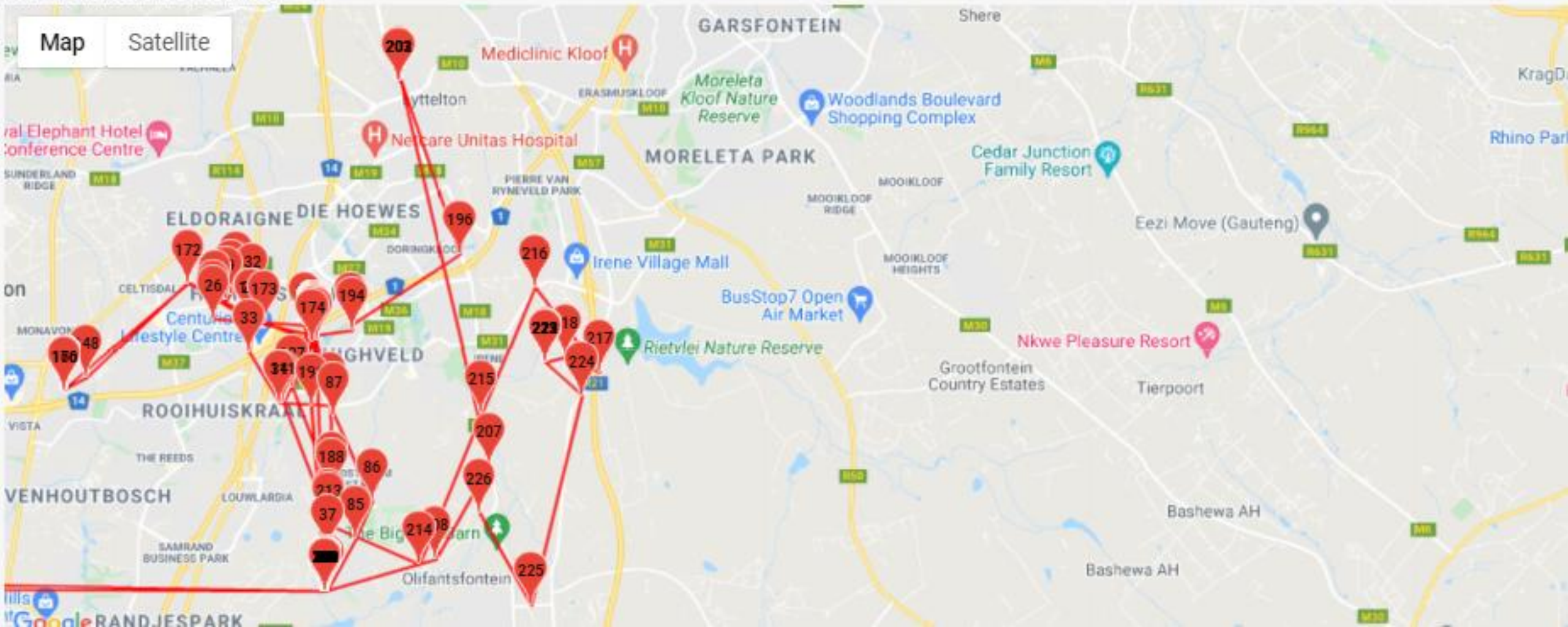
Once the Movement is detected, the device starts transmitting GPS Positions every 5 minutes.



## Location History

Start Date:  End Date:  No of Messages:

Note: 1 is latest location and 1000 is oldest



Alerts are sent via Email, Telegram with a map card and shown in the NOC Dashboard View.

The platform keeps an audit log of every alert sent from the portal and where it was sent. Should any user reset the alarm they will need to supply a reason.

Every action like muting a unit, resetting an alarm, suspending a device is time stamp recorded with the user details for accountability reasons.

**RAMAC®** Remote Access Management and Control Systems November 17, 2021 05:57:12 WED Akheel Jam.

Alerts

Device Type: RAMAC AT1 | Start Date: 2021-10-17 | End Date: 2021-11-17 | Search | Export

DEVICEID	ALERT TYPE	DATE TIME	VIEW MAP
C7258F	AT1 Movement Alarm	2021-11-11 13:34:52	No Location
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:30:31	
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:24:40	
C51581	State: -Armed -Not Alarming -Temperature Normal -Door Closed -New Location -Moving	2021-11-08 15:18:50	

ADD MEMBERS

19:38

Movement alarm for AT1 device  
Device:C6C3E5  
Description:LEVI\_Test 2  
Date:2021-08-23 19:38:38

Account:V2 SALES DEMO  
<https://portal.ramac.io/vd/C6C3E5/19>  
19:38

Movement alarm for AT1 device  
Device:C71A07  
Description:LEVI\_Test  
Date:2021-08-23 19:38:42

Account:V2 SALES DEMO  
<https://portal.ramac.io/vd/C71A07/19>  
19:38

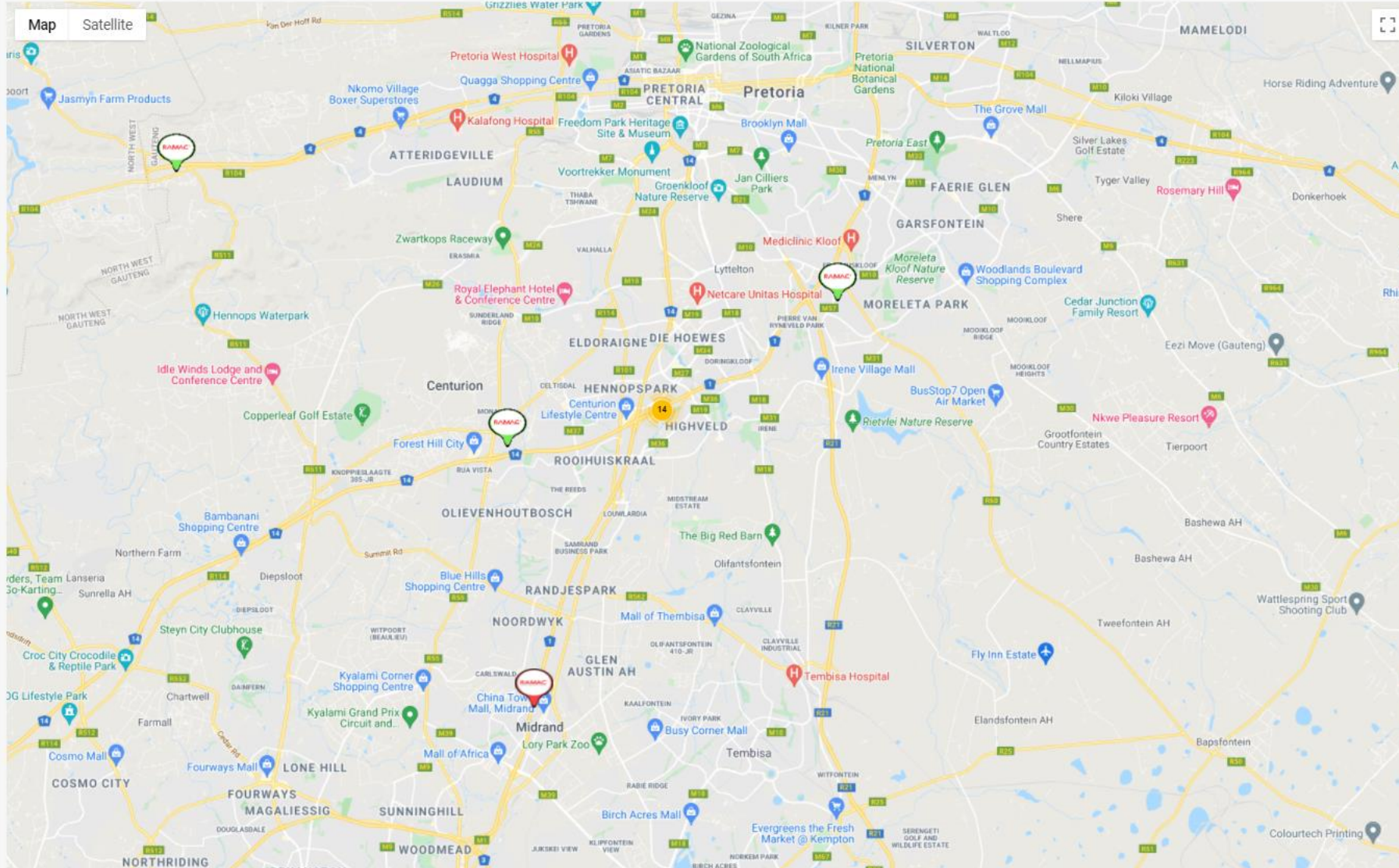
P1 Device Location Update  
Device:C5005E  
Description:Akheel\_Goodwill  
Date:2021-08-23 19:41:23

Account:V2 SALES DEMO  
Map:[Click Here](#) to view latest location on map  
RB



Account: All Accounts Device Types: RAMAC AT1 Devices: All Devices

Alerting Devices



### Devices Having Alert

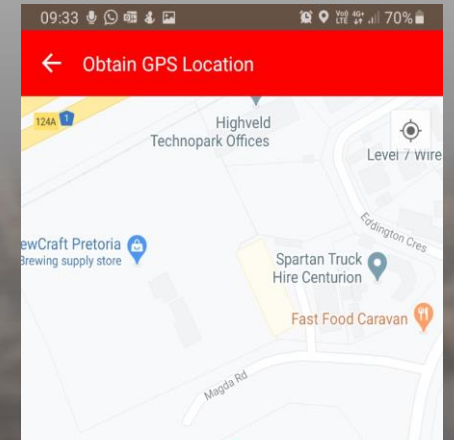
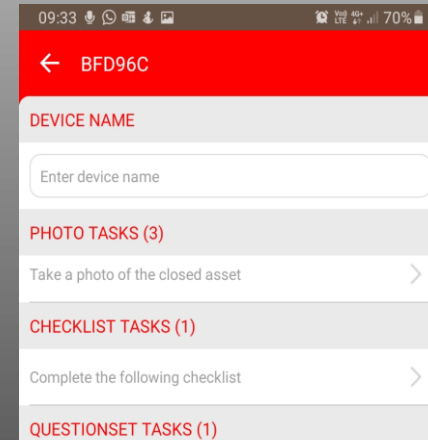
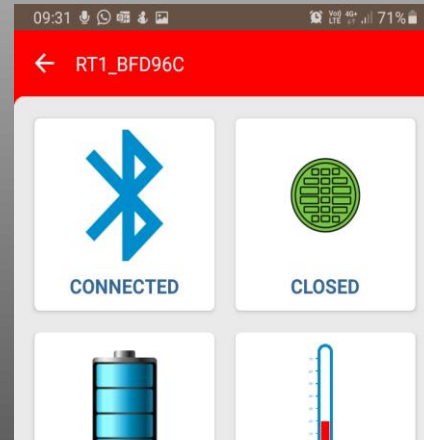
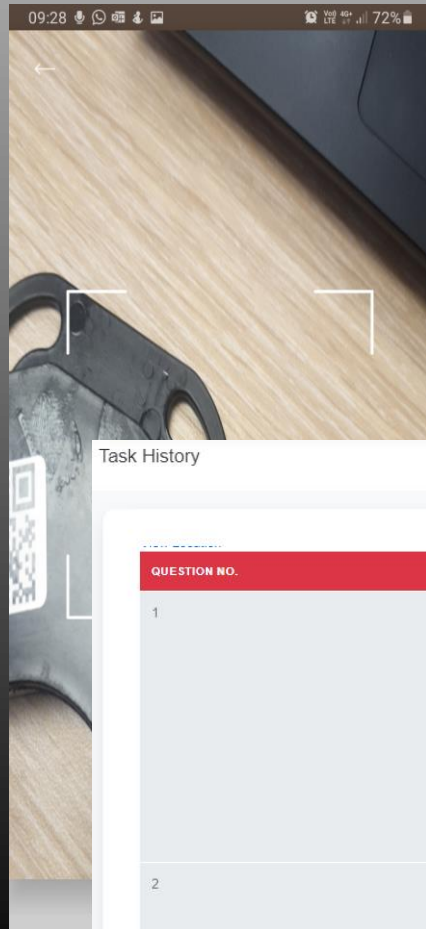
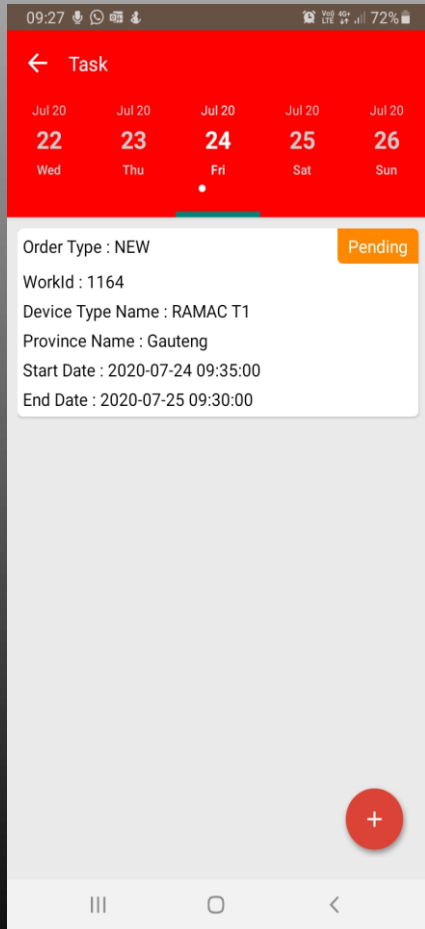
11 (Alert Devices) / 32 (Total Devices)

Show All

DEVICE ID	DEVICE TYPE	ALARM STATUS	LAST SEEN
<a href="#">C74604</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	12 minutes ago
<a href="#">C5007B</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C4DD3B</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C4DD2C</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C12ED1</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C4D277</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C6A9C1</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 hour ago
<a href="#">C57B76</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	1 day ago
<a href="#">C75DF9</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	8 days ago
<a href="#">C7690A</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	8 days ago
<a href="#">BFA048</a>	AT1	<span style="color: red;">!</span> <span style="color: green;">↻</span>	19 days ago

# Work Order Overview

The work order process is a step-by-step guide to activating the device whereby the Communication will only be enabled on the installation.



Task History

QUESTION NO.	TASK	ANSWER
1	Take a photo of the height installed in the ground	
2	Take a photo of the installed Device	





# Audit Log

All information captured by installer during the installation will immediately be available on the portal on completion of all tasks.

Search Device Id

### Work Order History

Start Date:  End Date:  Order Type:  Assigned User:  Device:   
 Status:    
[Clear Search](#)  
 Show  entries

WORK ORDER ID	WORK ORDER TEMPLATE	CLIENT	START DATE	END DATE	ORDER DATE	ORDER TYPE	DEVICE	STATUS	ASSIGNED TO	INSTALLATION DATE	ACTION
7697	Protea Coin	Protea Coin	2021-05-27 14:01:00	2021-05-27 15:16:00	2021-05-27 14:01:44	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7696	Protea Coin	Protea Coin	2021-05-27 13:57:00	2021-05-27 15:15:00	2021-05-27 13:58:53	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7695	Protea Coin	Protea Coin	2021-05-27 13:53:00	2021-05-27 15:16:00	2021-05-27 13:53:33	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7654	Protea Coin	Protea Coin	2021-05-27 12:03:00	2021-05-27 14:15:00	2021-05-27 12:04:29	MAINTENANCE	C6A397	NEW	Kenneth Lindgren	27-05-2021	
7653	Protea Coin	Protea Coin	2021-05-27 00:12:00	2021-05-27 13:10:00	2021-05-27 11:36:43	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	27-05-2021	
7652	Protea Coin	Protea Coin	2021-05-26 14:38:00	2021-05-26 16:25:00	2021-05-26 14:38:45	NEW	RAMAC MD1	NEW	Kenneth Lindgren	-	
7590	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7591	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7592	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	
7593	Protea Coin	Protea Coin	2021-05-25 12:15:00	2021-05-25 13:45:00	2021-05-25 12:25:01	NEW	RAMAC MD1	COMPLETED	Kenneth Lindgren	25-05-2021	

Pulse Sensor



Cable Theft Sensor



Temperature Sensor



RAMAC™ Portal  
& Mobile App



**RAMAC™**  
Remote Access Management and Control Systems

Remote Lock Unit



Power State Sensor



Intrusion Protection



Magnet Sensor



Asset Tracker



Smart Location  
Button



Vibration Sensor





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## Contact Us

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