Personnel Sign-In, Sign-Out &/or Assignment of Assets

Increase Safety, Improve Productivity & Operational Efficiency

Hand back time to your busy team by implementing an automated sign-in/sign-out solution that is linked to your tracking and asset assignment systems. Avoid human error and equipment misplacement by assigning assets to personnel who sign-in, then track their location underground using WiFi and BLE. IoT Solutions using Intrinsically Safe devices are available.

This solution enables you to:

- Trace who is signed-in & signed-out
- Implement automation tracking
- Automate processes to avoid human error
- Integrate into systems

- Implement asset management
- Comply to safety policies and procedures
- Implement productivity enhancements
- Collect big data for analytics & reporting

Roobuck provides IoT personal devices such as WiFi/BLE cordless cap lamps and belt tags that are designed to be assigned to your staff via a kiosk terminal. Rugged touch screens with NFC scanners run our Digital Kiosk software that allows personnel to scan their ID and IoT devices. These devices then send data to our Roobuck onsite server that can be hosted locally onsite to enable tracking and emergency alert applications. Roobuck has a specialist R&D team that can integrate your existing ID card system into our Digital Kiosk as a customised site specific project.

WiFi/BLE Cap Lamp and ID Card

Site Network

Kiosk

RIoTC - Software Management Platform

Section

Tagboard

Location, Personnel, Asset Search

| Location	Time	Person/Asset

Location Map Visualisation
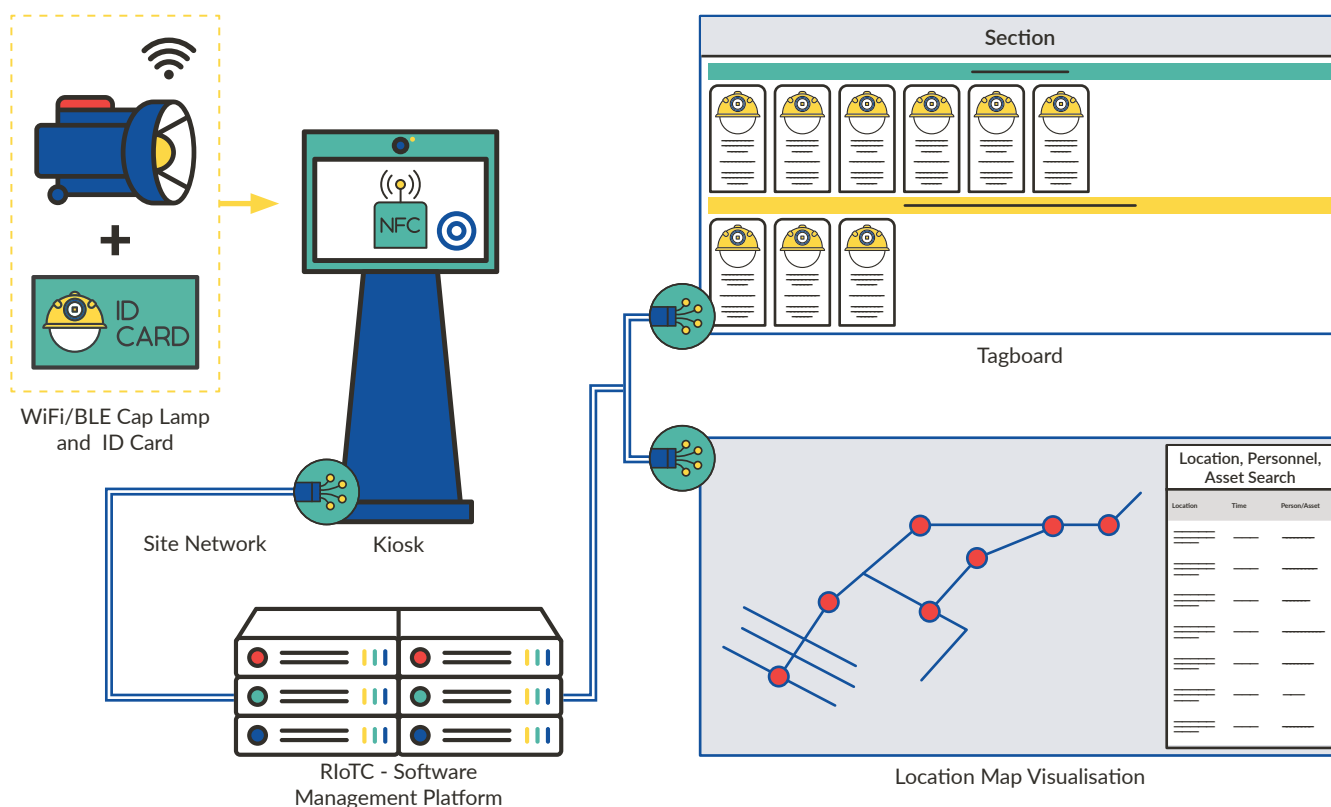
Digital Kiosk Linked to Live Applications

Personnel scan their ID card, then their equipment. Equipment can include a Roobuck IoT device, such as a WiFi/BLE cap lamp or belt tag or any device with an NFC sticker or tag attached. This person is then displayed on the Digital Tagboard and is visible on the Location Map Visualiser in real time. They will also receive emergency alerts sent via the evacuation tool, and can send duress calls, which will be received and displayed on the Tagboard. Emergency Alerts and Duress Calls are simultaneously displayed on operational PCs and tablets.

Asset Assignments

Equipment such as a hard hat or respirator can be registered into the system database.

- NFC tags or stickers are attached to equipment.
- The equipment is registered using the Tag Configurator Tool
- When a member of your team is signing-in to work, they scan their ID card, IoT device, and any registered equipment they are taking underground.
- If a vital piece of equipment is not scanned as part of sign-in, a digital record is kept and the control room can be alerted. This procedure can be configured to match your current compliance policy system.
- When a signed-in person is selected on the Digital Tagboard, a list of all their equipment is displayed
- Equipment usage data is stored and available for integration into your maintenance cycle system so you can make sure there is a record of all critical equipment going underground.
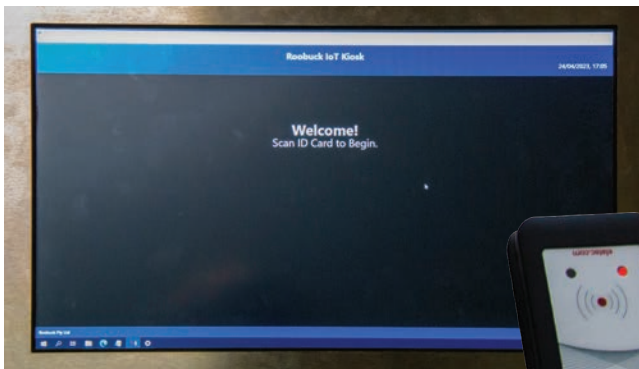
Digital Kiosk and Scanner
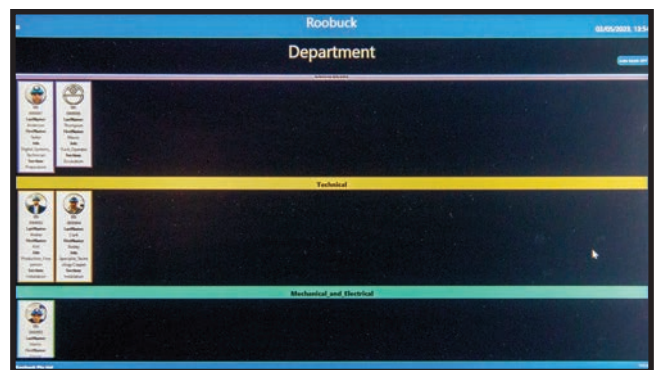
Tagboard

Cap Lamps, Belt Tags & Portable Tags

RN4E-WB
WiFi/BLE Cordless Cap Lamp

KC4E-WB-Ex
I.S. WiFi/BLE Cordless Cap Lamp

KH4E-WB-Ex
I.S. WiFi/BLE Cordless Cap Lamp

RN8C-WB
WiFi/BLE Corded Cap Lamp
Coming Soon

RBT6A-WB
WiFi/BLE Rechargeable Belt Tag

RPT6A-WB
WiFi/BLE Rechargeable Portable Tag

Technology

WiFi 802.11 b/g/n

13.56 MHz for use with your Kiosk, Digital Tagboard and Inventory solutions

Bluetooth V4.2, BLE

IMU for your movement data collection and personnel safety applications

UHF 860 - 960 MHz RFID can be integrated into tracking, registration & access control systems

Compatible with Roobuck solutions or your choice of enterprise tracking software

Roobuck is developing Cap Lamps, Belt Tags and Portable Tags utilising various wireless technologies including LTE, DSRC, UWB and LoRa.
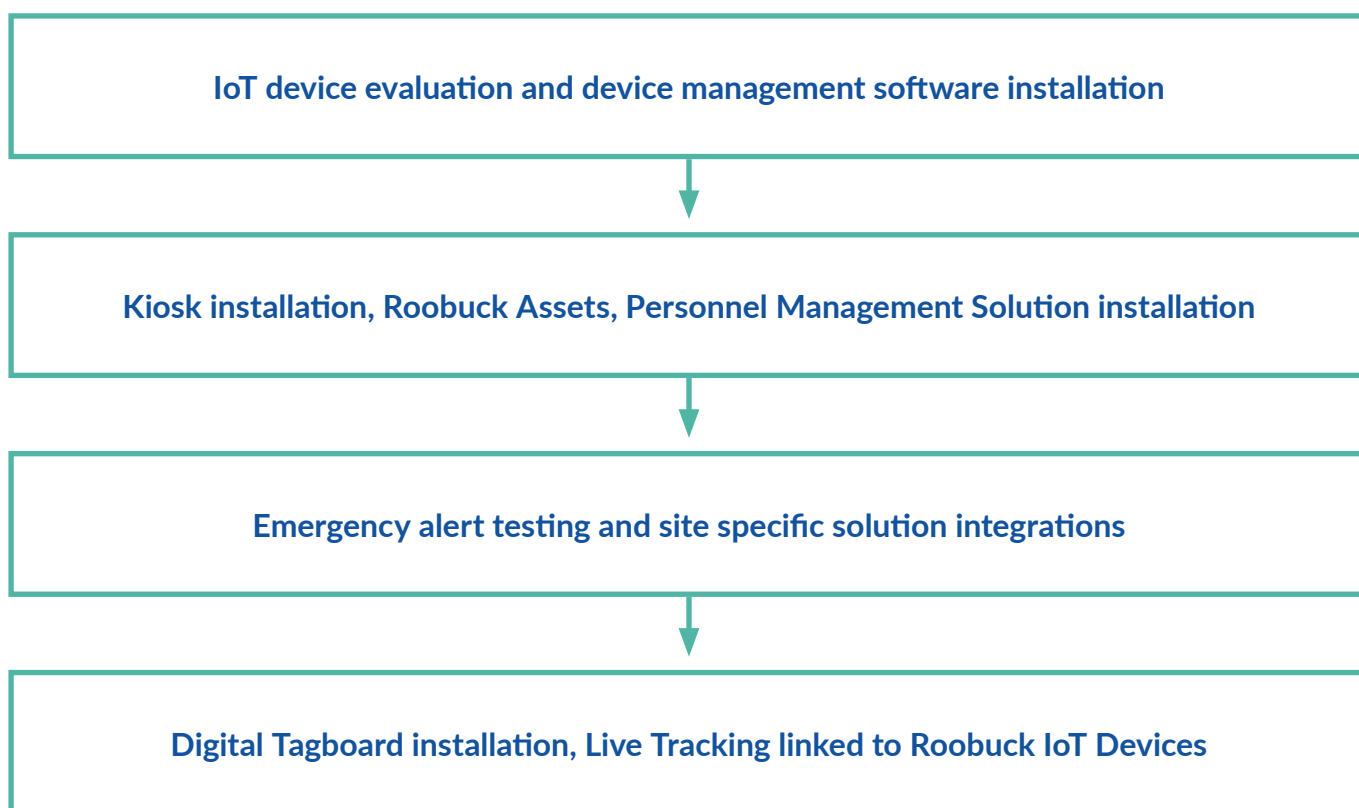
Emergency Management

Using the Roobuck Emergency Management System you can dramatically reduce the time it takes to inform personnel underground to evacuate. Roobuck IoT devices such as WiFi/BLE cap lamps or belt tags, that are signed-in using the Digital Kiosk, will respond to emergencies sent from the emergency management system by flashing.

When personnel press the button on their flashing device, they acknowledge receipt of the emergency message. They can also make a Duress Call by holding down the button of their device, prompting the control room to respond and make contact.

Solution Deployment Roadmap

Below is a visual depiction of the solution deployment process. Additionally, Roobuck would welcome hearing about your site specific requirements/problems to be solved and how we can apply customisation to this solution to meet your safety and optimisation requirements.

Once this is in operation you can add to this solution to enhance your operation efficiencies which will improve productivity and at the same time ensure the safety of your staff.

IoT device evaluation and device management software installation

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Kiosk installation, Roobuck Assets, Personnel Management Solution installation

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Emergency alert testing and site specific solution integrations

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Digital Tagboard installation, Live Tracking linked to Roobuck IoT Devices

Accelerate your mine digitalisation process with our low cost/commitment solutions today. Integrations into enterprise solutions are available, future proofing your investment and maximising your scope of safety and process optimisations.