WORKER SAFETY

Scaffolds: Connectivity, Information and Prevention

Technology that saves lives

Global Manufacturing Enterprise

Every year Japan suffers extremely violent and massive tropical typhoons that cause widespread destruction across its path. As a consequence, scaffolds installed for road construction fall and cause accidents on the street; they can range from property damage to most severe cases where even people get hurt.
Our corporate client knew technology could help them end this issue, and needed a solution to connect the hardware and software solution and detect these problems in real-time, to reduce the accidents generated every time that a scaffold collapses on the street; but most importantly, they needed to find a solution to prevent accidents altogether.

KEY RESULTS

REDUCE THE NUMBER OF SCAFFOLD ACCIDENTS TO ZERO

SMS/E-MAIL ALERT SYSTEM FOR SCAFFOLD ANOMALY DETECTION

REDUCE IMPLEMENTATION TIMES FROM MONTHS TO DAYS

AI PREDICTION MODELS TO PREVENT ACCIDENTS

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Why Webee?

The truth of the matter is that our more than 6 years of expertise in developing hardware and software IoT solutions guarantee the speed needed to deploy solutions efficiently, providing an absolutely reliable solution at a record time and drastically cutting down the costs and time of deployment.

Our Technology Approach

To help the company address the issue, Webee proposed a hardware and software solution, Japanese radio-certified, with the goal of preventing and monitoring scaffold movements in real-time.
The software solution is built with no-coding in our Visual IoT Platform (VIOT). After sensors are placed in the scaffolds, we connect them to our software automatically to then extract the data in real-time. Once in the software and through our no-coding app-builder feature the client can create customized dashboards to visualize the data, and set up an SMS-E-mail alert system. The intuitive software gives the client the power to customize it without the need of technical expertise.

HARDWARE APPROACH

Movement Sensor: With an accelerometer sensor in nine-axis we understand scaffolds movement in real-time. The sensor is connected wirelessly to the Gateway using LORA protocol.
Distance Sensor: Through an ultrasonic sensor we measure the distance between the scaffold and the ground in real-time. This device is connected wirelessly to a Gateway through LORA protocol.

Gateway: The gateway holds everything together and is the connection between the devices and the Webee software. It's 3G and it uses LORA protocol.