



A Cross-Platform Application for Real-Time Monitoring and Controlling of LIT Systems

Client Background

Our client, a trusted name in the electrical services industry, has been offering their services to commercial, industrial, and residential clients in the USA for over 15 years. Driven by a core mission to enhance efficiency and safety in industrial settings, they have introduced a Level Indicator Technology (LIT) to revolutionize the interactions of industry professionals with their critical systems.

Business Challenges

Industries that deal with hazardous liquids and chemicals require constant monitoring of industrial vessels and tanks for operational efficiency, safety, and compliance. However, accidental spills and leakage are common in such industries either due to human error or improper monitoring of vessels. To mitigate these challenges, our client wanted to launch a LIT system application empowering industry professional to effortlessly monitor fluid levels within tanks or vessels with unmatched precision.

Business Requirements

A cost-effective mobile application that is compatible with both iOS and Android platforms. The application's interface should be user-friendly so that anyone can easily utilize the application and remotely modify the microcontroller settings. Additionally, the application must establish a seamless connection with the LIT system's MCU (microcontroller) and adhere to the system's protocols for communication. The client wanted a prototype of the application in 2 weeks.

Solution

Softude developed a prototype of the industrial monitoring and control application within the given timeframe and requirements. We used Flutter for the app development as it provides a single codebase for cross-platform applications, saving us time in writing code for Android and iOS devices. Flutter's hot reload feature saved additional our time on application updates as our experts could quickly review the changes. We also implemented a suitable communication protocol for exchanging data between the application and MCU.

Solution Features

- On/off monitoring options
- Real-time insights on external level markers
- Seamless communication with the LIT system's dynamic visual display
- Remote settings for material and signal level indications, sensor calibration, and system customization
- Individual color customization for each material's level marker
- Customization of high and low-level warnings by percentage, color, and activation preferences
- Device customization to set the number of light bars, adjust sensor input signals, and set motion sensor delay intervals

Solution Impact

- 30% cost saving with minimized accidents or spills
- Minimized downtime with real-time monitoring of industrial tanks or vessels
- Enhanced industrial safety
- Enhanced operational efficiency

About Us

Incorporated in 2005, Softude is a global IT consulting and services company with expertise in architecting digital transformation solutions and providing software product engineering services. We are dedicated to creating innovative and interactive digital experiences that connect people to the brand. These software solutions that are used across 32+ countries are engaging audiences in-venue, on the web, and personal mobile devices. Our highly competent and trusted team delivers digital brilliance that accelerates our client's digital-first journey.

Softude is a CMMI Level 5 appraised, ISO 27001:2013, ISO 9000:2015, and a Great Place to Work For certified company.

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