ALTEN CALSOFTLABS
AN ALTEN GROUP COMPANY

Building a Connected Classroom Leveraging IoT

👤 THE CLIENT

The client is a global university in US.

🤝 BUSINESS NEED

The client wanted ALTEN Calsoft Labs to design a framework to control multiple devices through a single remote. Some of the challenges faced in the process includes:

◉ Controlling multiple projectors and displays in lecture rooms

◉ Controlling huge number of DVD players and speakers

🖥 TECHNOLOGY USED

Main Board consists of MCU and peripherals listed below:

◉ Number of buttons: 8

◉ Control Types: Serial RS232, Infrared (IR), 12V DC Triggering

◉ Data/Power Connection: Rj45

◉ Buttons: Rubberized - contact style

◉ Key Plate Material: ABS Plastic

◉ Wall Plate Cover Material: Nylon

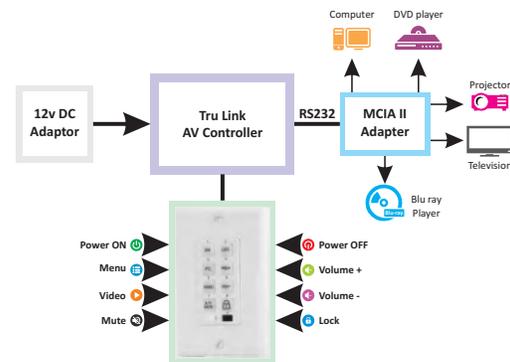◉ PCB Dimensions (HxWxD): 103 x 45 x 25mm

Multiport Controller Interface Adapter (MCIA) consists of :

◉ Connections: 5.5mm DC Power, DB9 Male x 2, 3.5mm TS, 2-Port Screw Terminal (IR), RJ45, 3-Port Screw Terminal (12V trigger)

◉ Material: ABS Plastic

◉ Dimensions (HxWxD): 23.5 x 82.4 x 69.1mm.

⚙ SOLUTION DELIVERED

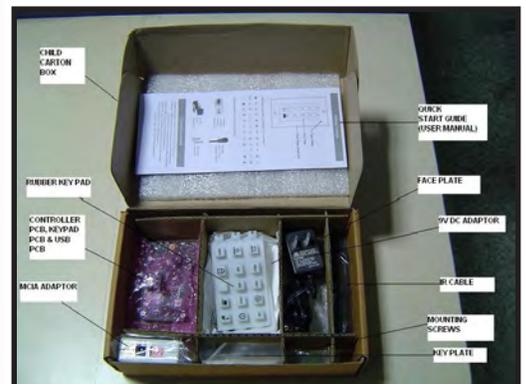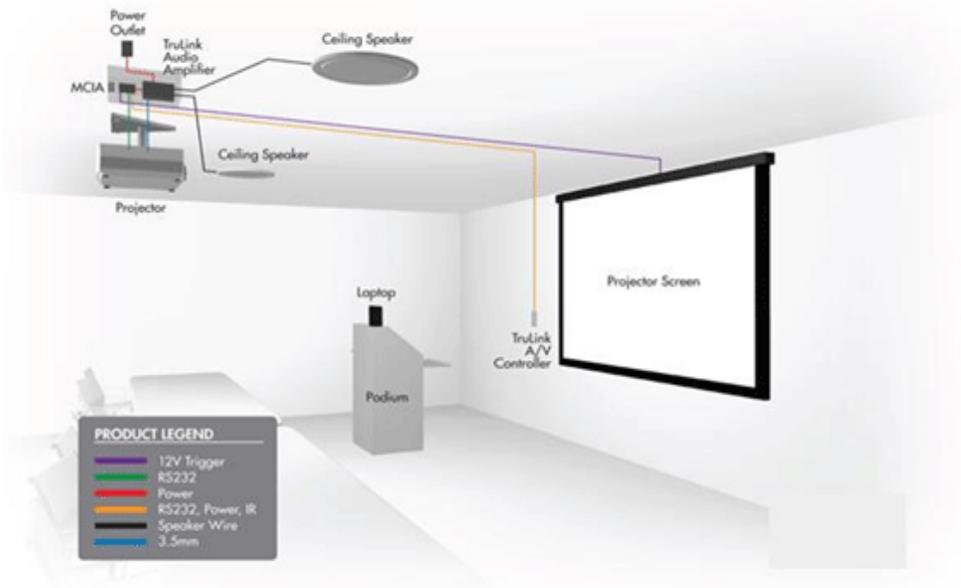ALTEN Calsoft Labs' end-to-end IoT solution included the following activities viz,

◉ Design and development of Hardware & Embedded software for A/V controller used in Conference Rooms

◉ Manufacturing and supply of H/W boards to our client based in USA

◉ Provides support for 120+ devices (of different makes) available in the US market

📈 BUSINESS BENEFITS

◉ On-board, real-time clock for easy time and date programming

◉ 12V DC Triggering provides control for electromechanical devices, such as projector screens , blinds, DVD/Blu-Ray players, Speakers, etc.

◉ Up to 32 commands for control of numerous A/V devices

◉ Backup capability eliminates the need for reprogramming in the event of a power failure.

◉ The TruLink AV Controller when installed in a Classroom has the ability to control multiple devices from a single IR remote.

PRODUCT LEGEND
- 12V Trigger
- RS232
- Power
- RS232, Power, IR
- Speaker Wire
- 3.5mm

PRODUCT LEGEND
- RS232
- Power
- RS232, Power, IR

ABOUT ALTEN CALSOFT LABS

ALTEN Calsoft Labs is a next gen digital transformation, enterprise IT and product engineering services provider. The company enables clients innovate, integrate, and transform their business by leveraging disruptive technologies like mobility, big data, analytics, cloud, IoT and software-defined networking (SDN/NFV). ALTEN Calsoft Labs provides concept to market offerings for industry verticals like education, healthcare, networking & telecom, hi- tech, ISV and retail. Headquartered in Bangalore, India, the company has offices in US, Europe and Singapore. ALTEN Calsoft Labs is a part of ALTEN group, a leader in technology consulting and engineering services.

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