

# AI & IoT Hands-on Learning System

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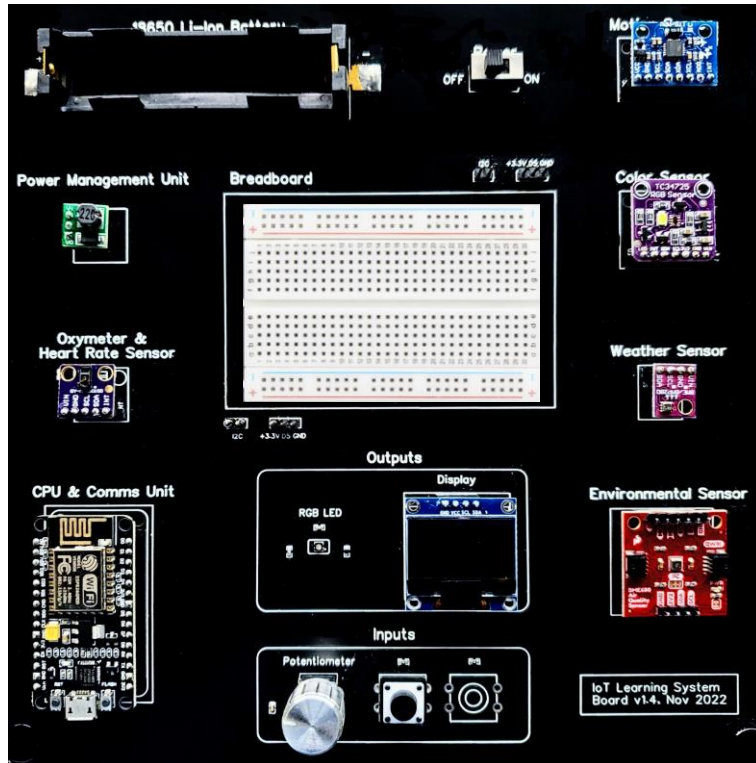


Fig: The AI & IoT Hands-on Learning Platform. Students can connect to this board to perform experiments and can deploy a smart project without an external power source as it has onboard battery.

**75%** Of all devices are forecast to be IoT by 2030\*

As demand for IoT grows, huge amounts of data will be generated, creating more challenges than opportunities. But Artificial Intelligent IoT devices can help interpret this data in real-time by learning from the past and optimizing for the future.

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The learning platform is powered by an ESP 32 microcontroller connected to several sensors and Input/Output devices. The platform enables students of various age groups to get hands-on learning experiences with IoT systems. The platform also lets the students explore and deploy AI-enabled IoT Edge devices. The learning system includes a set of experiments covering topics from microcontrollers to AI-powered smart-home devices. The platform can be programmed using Arduino IDE. The simple open-source programming interface and user-friendly software environment allow students with various levels of expertise to create smart projects. The accessibility of the platform makes it fun for beginners to learn programming and coding logic.

*“Learning to code with a strong grip on how the underlying hardware behaves enables for a holistic learning experience. Students who can master both software and hardware are the ones building the tools for the future”*

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\* According to a survey by FinancesOnline from 2022