

Edge IoT Teaching Platform

IOT-110



IoT - when artificial intelligence meets Internet of Thing

In the last decade, we have seen explosive growth in connected devices and are headed into the era of Internet of Things. However, cloud computing still has its limitations in supporting the processing of large amounts of data collected by a large number of IoT devices, especially in latency issues.

To resolve the issues of latency, more and more companies are now seeking to incorporate AI and edge computing solutions into their IoT systems, trying to let IoT devices to do their own data analysis.



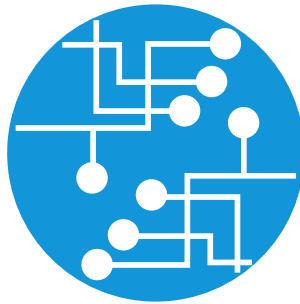
Edge computing

The biggest benefit of edge computing is the ability to process and store data faster, enabling low-latency and more efficient real-time applications such as self-driving cars, healthcare systems.

Internet of Things



Edge computing



Cloud



IOT-110 is a platform that integrates the training of edge computing, AI, and IoT, whose system consists of 16 sensor modules, edge computing modules, and AI computing accelerators. Each of the 16 sensor modules is embedded in a separate aluminium housing. The shell contains a hook and each module is embedded with a rechargeable Li-battery, which is convenient for users to deploy it in most training environments and receive sensor data quickly.



System Features

- ◆ Graphical programming language development tools : users can generate program writing by dragging and dropping.
- ◆ All data collected from sensors are stored in database. Data can also be uploaded to cloud servers, such as ThingSpeak, Amazon Web Services, and Microsoft Azure.
- ◆ Completely follow the MQTT communication protocol, and data is obtained through publication and subscription.

Learning Topics

1. Introduction and application of 16 sensor modules
2. Edge computing modules
3. Comprehensive IoT development tools
 - Python
 - HTML & CSS
 - Django
 - MQTT
 - JavaScript
 - Node-red
 - MySQL

