AOTHOME Series

Home • Home Plus • Home PrimeX



8 types of sensor modules provided for AloT Home Plus and AloT Home PrimeX



- Al and IoT convergence training equipment using 2D model of living room of home
- · Main module supporting AI acceleration calculation, multimedia and various IoT sensors are integrated into the base board
- The main module is selectable between a 128-core GPU supercomputer for edge devices or a Cortex-A72 quad-core processor with tensor processor unit
- 5 inch TFT LCD with 800x480 resolution and 8M pixel high resolution camera
- Provides Gigabit Ethernet, dual band Wi-Fi(2.4GHz, 5GHz) and Bluetooth 4.2 or 5.0
- Digital microphones and speakers support cloud-based speech recognition and audio playback
- 4 dedicated expansion interfaces support various IoT sensor modules
- · Positioning sensors and actuators by creating 2D models of living rooms in real homes to increase immersion
- Soda OS, the exclusive AloT operating system, and Pop library
- Interpreter-based C/C++ development environments optimized for programming beginners, including Python 3
- A dedicated web browser-based learning environment for training Python 3 and C/C++ simultaneously on PCs and tablets
- mDNS/DNS-SD based distributed name resolution, network service publishing and discovery support
- Open Integrated development environment based on Visual Studio Code for professional application development
- · Educational contents for IoT sensor control, multimedia and AI
- AloT Home Plus provides 8 types of IoT sensor modules connected to a dedicated expansion interface
- · AloT Home PrimeX contains a supercomputer up to 21TOPS supporting all Al frameworks

For more contact: Quality Quest Engineers A.M. 3rd Street, Thousandlights, Chennai : 600006, Tamilnadu, India Ph: +91 98400092362, 04428291432

AloT Series

Training Contents

Introduction to AloT Home

Configuration and Practice Environment of AloT Home Python and Linux 101 IoT Application Technology

Sensor Control

File and DB-Based Data Persistence Audio Recording and Playback Google Text-to-Speech Converter Google Assistant and User Device Actions Camera and Sensor Applications

Al Technology

Numpy for Fast Multidimensional Matrix Operations Pandas for Time Series and Tabular Data Analysis Matplotlib for Data Visualization Supervised and Unsupervised Learning Theory & Practice for Pop.Al-based Linear and Logistic Regression Algorithm Theory & Practice for Pop.AI-based Perceptron Theory & Practice for Pop.AI-based ANN, DNN, and CNN Theory & Practice for Pop.AI & OpenAI DQN-based Reinforcement Learning Understanding Tensorflow





AloT Home PrimeX



8 types of sensor modules provided for AloT Home Plus and AloT Home PrimeX

Platform USB Power Cable (include OS 1EA image and Tools) 1EA

1FA

net Adapter

1EA



Adapter 1EA



USB to Ether- Ethernet Cable Micro USB User Guide Cable book 1EA 1EA



List		Specifications
Soda OS	Linux Kernel	4.19
	Desktop	X-Server, Openbox, LightDM, Tint2, blueman, network-manager, conky
	CLI	Zsh, Tmux, Peco, powerlevel9k thema, Powerline fonts
	Tool Chain	GCC 9, JDK, Node JS, Python3, Clang
	IDE	Visual Studio Code, NeoVim, Geany
	Connectivity	Mosquitto(MQTT), Bluez, mtr, nmap, iptraf, Samba, Blynk Server, Remove Desktop Server
	Multimedia	portaudio. sox, OpenCV 4, snowboy, Google Assistant
	Data Science & Al	Python3, Numpy, Matplotlib, sympy, Pandas, Seaborn, Scipy, Gym Scikit-learn, Tensorflow, Kerast
Pop Library	Output Object (C/C++, Python3)	Led, Laser, Buzzer, Relay, RGBLed, DCMotor, StepMotor, OLed PiezoBuzzer, PixelDisplay, TextLCD, FND, Led Bar
	Input Object (C/C++, Python3)	Switch, Touch, Reed, LimitSwitch, Mercury, Knock, Tilt, Opto, Pir, Flame LineTrace, TempHumi, UltraSonic, Shock, Sound, Potentiometer, Cds SoilMoisture, Thermistor, Temperature, Gas, Dust, Psd. Gesture
	Multimedia (Python3)	AudioPlay, AudioPlayList, AudioRecord, Tone, SoundMeter
	Voice Assistant (Python3)	GAssistant, create_conversation_stream
	AI (Python3)	Linear Regression, Logistic Regression, Perceptron, ANN, DNN, CNN, DQN