Vantron

ABOUT VANTRON

For over twenty years, Vantron Technology has been a leading global provider of embedded computing and intelligent IoT solutions. With our commitment to continuous technology innovation and customer-centric engagement model, Vantron strives to provide state-of-the-art and highly cost-effective turn-key solutions to enable our customer's success.

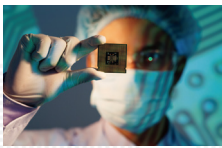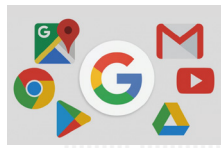|				
2002 Founded	**USA** Headquartered with Local Support	**>1M Devices** Shipped in 2023	**>200** R&D Engineers	**100%** In-house Design
800+ Customers	**30+** Fortune Global 500	**10+** Top-tier Fitness Customers	**5+** Worldwide Manufacturing Sites	**OEM/ODM** Professional Services

WHY US ?

Abundant Building Blocks
Delivering best-fit proposals and cutting-edge chipset solutions

Full Access to Google Services
One-stop GMS certification service

Apple Ecosystem Compatibility
Gymkit supported for Apple Watch pairing

Best Acoustic Experience
Tweeter and Woofer integration with advanced algorithms for superior sound

Stay Connected
Latest Wi-Fi and Bluetooth solution for enhanced connectivity

All about Health
Bluetooth connectivity with virtually all mainstream sport devices like 5kHz, ANT+, etc.

Continuous Updates
Vantron BlueSphere OTA tool to keep the system and applications up-to-date

BSP support
Android Board Support Package (BSP) customization to fulfill specific needs

Fitness Application Design
Modern interface with workouts programs and entertainment features

WE ARE A PROFESSIONAL DESIGNER AND MANUFACTURER OF FITNESS SMART CONSOLES

CASE STUDY

CUSTOMER BACKGROUND:

Based in the U.S., the company contributes to human health by designing and manufacturing fitness equipment

CHALLENGE 1:

The customer is seeking for a supplier with expertise in embedded hardware/firmware (for LED version), and SoC solution/Android development (for LCD version).

Solution: Vantron is well-versed in both embedded MCU-level system design and SoC-level system design, encompassing not only hardware manufacturing, but also the buildup of software capability.

CHALLENGE 2:

The customer would like to provide end users with access to a wide range of apps like Hulu, Netflix, YouTube, as well as the ability to connect their Apple Watch to exchange the training data.
Solution: Vantron designs the product with GMS certification and MFI certification to enable access to Google Play Store, use of streaming apps, and connection with Apple Watch.

CHALLENGE 3:

The control board needs to support firmware for both LED and LCD versions.
Solution: Vantron offers a solution for sharing of C/C++ Library containing M2M protocol information with MCU firmware and Android JNI(Java Native Interface) layer.

CHALLENGE 4:

The equipment shall support OTA upgrade and the customer can monitor the health condition of the equipment remotely.
Solution: Vantron offers an OTA platform for system upgrade and a customized IoT platform for data collection & visualization for business decisions.

KEEN REQUESTS:

1、LED-version fitness machine does not fully meet customers' needs for entertainment and immersive training, they need smarter devices to expand their business offerings.
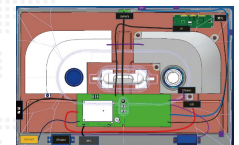
2、Such next-generation console will be applied to a wide range of machines to support all legacy systems.

- Console Design
- Hardware Design
- LED Firmware Design
- Control Board Firmware Design
- LCD Android GMS System Design
- Android Application Design
- Cloud Platform

EXAMPLE DESIGN

A BODY-BUILDING BIKE, FEATURING:

- 23.8" all-in-one smart console
- 2.1 stereo speakers (2 x 3W + 2 x 10W)
- Microphone array with echo cancellation and noise reduction
- AG/AR/AF touch screen
- Custom USB Type-C as a cableless solution

CUSTOM DESIGN/ODM

1	2	3	4	5	6	7
Demand briefing	Proposal development and business information exchange	Business and technical contracts	Approval of project proposal	Routine project meetings	Project acceptance	Manufacturing

- Vantron has a high-quality, experienced R&D team with professionals involved in software, hardware, testing, and structure. It boasts a variety of key R&D technologies and multiple labs for parts and components testing, EMC & safety compliance testing, environment simulation, function and performance testing, etc.

- Vantron has established comprehensive project management processes and quality control systems to provide quality products in an efficient manner.

- Vantron invented a unique one-on-one management mode for customized services to keep track of customer concerns and confusions and come up with a solution in a timely manner.