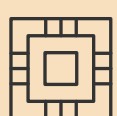


How to Build a Mobile Robot With MediaTek Genio

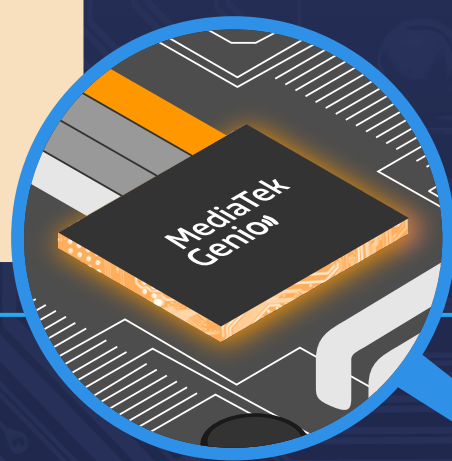
See how reliable embedded AI processing helps sense the world and conquer the unexpected.

Start with the Brain



The Genio System on a Chip (SoC) is where all the data is processed

CPU, AI, GPU, displays, imaging, and connectivity all integrated into a single chip



Keep it Connected



Connectivity is key to add features with over-the-air updates



MediaTek is one of the only companies to offer connectivity options including Wi-Fi, cellular, and satellite



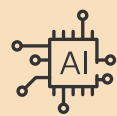
5G connection enables high bandwidth data throughput for streaming video and cloud connectivity

Give it Mobility



Add a motor controller to help navigate the world around it

- ▶ Classification algorithm
- ▶ Object detection



Supported by advanced AI & Genio SoC



Add a Vision System

Choices include:

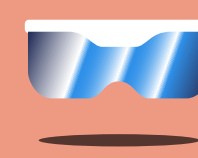


- ▶ Cameras: Genio supports high-speed camera processing and visual SLAM
- ▶ LIDAR/Radar



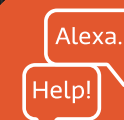
What is Simultaneous Localization and Mapping (SLAM) Algorithm?

Adds compute power with GPU & AI engines inside the SoC—to make the algorithm faster



BONUS: Robot Sunglasses

Genio's vision system enhances lowlight and different brightness levels to ensure the robot can see



Add Voice Recognition



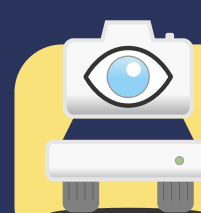
Microphones connect to Genio and run the algorithm to:

- ▶ Hear from a distance
- ▶ Detect words/sound
- ▶ Remove noise



Featuring: New Language Processing (NLP)

Doesn't require a cloud dictionary for audio language processing (ALP)



Hear something? Have your mobile robot drive there to investigate and take a picture

Can you bring me a drink?



Okay, Sam!

Talk to your robot like a voice assistant

Innovate Confidently with MediaTek Genio

Designed for demanding AI and performance-centric IoT applications, MediaTek Genio is a premium IoT SoC that provides best-in-class CPU, graphics, and AI performance, support for the latest multimedia standards, multiple 4K displays, and exceptional power efficiency in a 6nm-class chip.

Discover MediaTek Genio