

THE WEEKLY TECH BUZZ

# MEET THE CPU, YOUR TECH'S THINKING BRAIN

NEWSLETTER EDITION 07 | AUGUST 05 2025



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## Hey Weekly Tech Buzz readers,

This week, let's explore the Central Processing Unit, or CPU, the part of your device that does the thinking. From opening apps to playing games, the CPU reads instructions, makes decisions, and gets things done at lightning speed. It handles billions of operations every second, turning code into action and keeping your tech running smoothly. It's not just a part. It's the brain behind it all.

## What is a CPU?

Imagine having a super-smart helper inside your device, one that listens to every tap, click, or swipe you make and instantly figures out what to do. That helper is the CPU, or Central Processing Unit. It's often called the brain of the computer because it does all the thinking from opening your apps and running your games to

## FACTS

### Did You Know?

The first commercial CPU, the Intel 4004, was released in 1971 and it could only process about 92,000 instructions per second. Today's CPUs can handle over 100 billion per second.

### Gadget of the Week:

The MacBook Pro with M3 chip uses a powerful CPU that helps designers, coders, and creators work faster than ever, even on battery power.

solving problems and keeping everything running smoothly.

The CPU works incredibly fast, handling billions of tiny instructions every second to make sure your device responds just the way you want it to.

### How Does a CPU Work?

The CPU runs your device using a simple but powerful cycle that repeats billions of times per second. It follows three main steps to carry out every task, from launching an app to calculating a score in a game. Here's how it works:

**Fetch:** The CPU retrieves an instruction from memory. This could be anything from opening a file to starting a process.

**Decode:** Once the instruction is fetched, the CPU figures out what it means. It translates the command into a set of signals that the hardware can understand.

**Execute:** The CPU carries out the action. This might involve performing a calculation, moving data, or interacting with another part of the system.

This is known as the fetch-decode-execute cycle, and it's the core of everything the CPU does. The faster this cycle happens, the more responsive and powerful your device feels.

### CPUs Behind the Fastest Devices

Some CPUs are built for everyday use, while others are designed for speed, power, and performance at the highest level. Let's take a look at a few of the most powerful CPUs making our devices smarter and faster.

### APP TO EXPLORE

Try **CPU-Z**, a handy app for Android and Windows that shows what's inside your device by displaying your CPU name, speed, core count, and more. You can also view details like RAM, battery info, and device model, all in a simple interface.

### YOUNG INNOVATOR SPOTLIGHT

**Tanmay Bakshi** started coding at age five. By 12, he was working with IBM on AI and machine learning projects.

Like a CPU, Tanmay solves problems step by step using logic, curiosity, and code. His journey shows that it's never too early to start thinking like a technologist.



- **Apple M3:** Powers new MacBooks for video editing, coding, design and AI. Fast and battery-friendly.
- **Intel Core i9:** Ideal for gaming, streaming and content creation. Smooth multitasking with no lag.
- **AMD Ryzen 9:** High-speed CPU for gamers and engineers. Great for multitasking and custom PCs.
- **NVIDIA Grace:** Built for AI supercomputers and data centers. Handles massive tasks in science and tech.

From the laptop on your desk to the computers that train AI models, these CPUs are the driving force behind some of the fastest and smartest technology in the world.

### Why the CPU Is Key to AI?

AI needs to think fast, learn from data, and make quick decisions and the CPU helps make all of that possible. While other chips like GPUs often handle the heavy AI tasks, the CPU is used to build, test, and control AI models. It runs the code, manages the data, and helps train the AI before it's ready to go live.

Today's CPUs are built with multiple cores and smart features that make them great at multitasking. They can handle lots of instructions at once, which is important when AI needs to work with large amounts of information.

So even though the CPU may not do all the learning, it's a big part of making sure AI works smoothly, from the first line of code to the final result.

### Things to do

**Find Out:** Look up the model name of your computer, laptop, or phone. Then search online to see what CPU it has. Is it made by Intel, AMD, Apple, or someone else?

**Compare:** Choose any two CPUs mentioned in the newsletter, like Intel Core i9 and Apple M3. Compare their speed (GHz), number of cores, or what types of devices they power. Which one do you think is more powerful?

**Explore GHz:** Look up the term "GHz" (gigahertz) and learn what it tells you about a CPU's speed.

Hint: it's all about how many instructions it can handle per second.

**Happy  
exploring!**

**From clicks to code, be the genius behind the screen!**