

What we know so far about the rumored Apple smart ring

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Samsung officially announced the launch of a new smart ring-shaped wearable device, Galaxy Ring, as [part of its Galaxy Unpacked event](#) earlier this year. The ring, expected to be on sale in late summer 2024, will be able to monitor the user's health parameters and provide insights based on the health metrics observed, which is very similar to what a smartwatch can do.

The global smart [ring market is expected to grow](#) from USD\$314.52 billion (£246.3 billion) in 2023 to USD\$2,570.30 billion (£2,012 billion) by 2030. So it is no surprise that Apple is now rumored to be [applying for its smart ring patents](#) and is expected to have the product ready in time to compete with Samsung's release.

But it might be surprising to learn that neither Samsung nor Apple are pioneers in this new wearable technology. [Oura was launched in 2015](#) with a Kickstarter campaign for the first generation ring.

Now on its third generation, with the fourth one expected in 2024, this smart ring can measure respiratory rate, heart rate, health rate variability (HRV), blood oxygen levels, and body temperature. The ring also has an accelerator that logs the user's activity and movement. However, the main question is: is wearable technology worth it?

What is wearable technology?

Wearable devices come in many shapes and sizes, including [smart watches](#) and sports watches, fitness trackers, head-mounted displays, smart jewelry, smart clothing, and even [implantable devices](#).

Technological advances have enabled manufacturers to access low-cost, low-power sensor technology and develop this variety of devices. At a

minimum, wearable devices are equipped with sensors, software and connecting technology.

The sensors gather information from the person wearing the device, and the software gathers the data and sends it to a device with processing capacity via a wireless connection. The ecosystem on which wearable technology works is [known as the Internet of Things \(IoT\)](#). It is the same principle as smart technology used at home, on devices such as thermostats that can be operated from a mobile device outside the home, or smart speakers, but applied at a personal level. It is important to note that mobile devices do not process the data; it is usually sent to "the cloud" for processing, and the mobile device displays the data to the user.

What makes an IoT solution even more attractive is the interpretation of the data gathered by the sensors. For example, the [Oura Ring and the Oura Membership](#) allow users to monitor their sleep, manage stress and predict when they might get sick by monitoring body temperature and heart rate. This is all possible due to analysis of the data collected by the ring.

With advances in [artificial intelligence](#) (AI), it is expected that in 2024, there will be a [boost in health tracking](#).

Benefits and drawbacks

Smart rings come with sensors similar to those of a smartwatch. However, because of their proximity to large blood vessels in the fingers, smart rings can provide more accurate readings than smartwatches, because they can use the capillaries ([small blood vessels](#)) in your finger to get their readings. Another advantage of smart rings is that they have a longer battery life than smartwatches. However, smart rings are unlikely to come with GPS or a screen.

In terms of price, the cheapest version of the Oura ring starts at £299 and users must pay a membership fee of £5.99 per month, with the first month free. This is required to get all the benefits of data analysis. However, the ring will still work with the Oura mobile app. The most affordable version of the AppleWatch, the SE version, starts at £219, while the Samsung Galaxy Watch6 Bluetooth starts at £239.

Smart rings can't and won't be able to replicate the functionality offered by a smartwatch. However, they represent an attractive choice for users interested in health tracking, who also want a simple device with minimalistic features. [Bryan Ma](#), the Vice President of devices research at International Data Corporation, has said, "The idea behind such rings is not so much about being cheaper than smartwatches, but instead being a much smaller and discrete device for use in cases like sleep tracking."

The future of wearable technology?

Wearable technology will continue evolving, with a strong focus on health monitoring. For example, Microsoft has been [exploring smart tattoos](#) as the next generation of wearable tech since 2016. However, due to the labor intensive fabrication technique for gold leaf, which is used in the tattoos, researchers are now focusing on more robust, advanced, and inexpensive materials.

Researchers at the University of Washington have also [developed the thermal earring](#). This was able to measure the user's earlobe temperature but shows promise for other areas of monitoring, including for eating and exercise. Although not commercially available, this device demonstrates how engineers are developing new ideas for wearable devices.

Under Armour already sells [running shoes embedded with Bluetooth and sensors](#) that track run statistics such as distance and pace. The shoes also

measure running from metrics such as cadence (steps per minute), ground contact time, foot strike angle and stride length.

The app provides real time audio coaching, but only focuses on cadence. In future, we can expect to see advances in [smart contact lenses](#), [smart nails](#), [smart buttons](#), and many more.

Is wearable technology worth it?

The expected increase in the market size of this technology shows users' interest in monitoring their health and improving their lifestyle.

Developments in the Internet of Things, in general, have improved our way of life and supported our well-being.

Connected devices collect, track, and store user data, which is the primary purpose of the technology. What users need to know is that many wearable devices share data with third party apps and services, and it is often unclear how this data is being used. The data can be sold to other companies or utilized for different purposes without the user's knowledge or consent. Moreover, [wearable devices can be hacked](#).

With this in mind, and as we have done with all new technology, users must consider the advantages of wearable technology and determine if the risks are worth taking. If security and data privacy are a concern, users are encouraged to follow all security recommendations provided by experts and manufacturers to protect their devices and research more on how their data is used and shared.

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