

Xiaomi unveils Smart Glasses—a wearable concept device

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Credit: Xiaomi

Chinese electronics giant Xiaomi has announced on its [website](#) the development of a wearable concept device called Xiaomi Smart Glasses. The device is shaped like regular eyeglasses and is meant to be used as a standalone device, not as a smartphone peripheral.

In its announcement, Xiaomi notes that by creating a pair of smart eyeglasses, the company is seeking to produce a [device](#) to replace the smartphone—one that does not require being carried around in a pocket or holster. Other similar devices have notably been focused on adding functionality to smartphones, such as augmented reality. The new eyeglasses from Xiaomi, in contrast, are meant to give wearers smartphone capabilities, such as reading email, taking pictures and responding to voice calls, but without a phone. Xiaomi has not abandoned the idea of offering AR applications though—their eyeglasses come with an app that helps guide users while driving and another app that overlays translated text.

To provide [smartphone](#)-like services on an eyeglass frame, Xiaomi started by adding a tiny quad-core ARM processor small enough to fit

within the frame, running a customized version of Android. They also added buttons on the side for control, such as operating the tiny 5MP camera and the even tinier microphone—and Wi-Fi and Bluetooth and a battery. But the real star of the new eyeglasses is the microLED display—it is based on waveguide technology and the chip for it measures just 2.4mm x 2.02mm with 4µm sized pixels.

Xiaomi notes that the use of waveguide technology works by refracting the light that comes through the grating structure on the front of the lens. This allows for directing light into the human eye, which translates to very sharp, clear and bright images and data. Unfortunately, to downsize such a system required tradeoffs—the smart glasses are monochrome—they can only display data and imagery in green—and information is only displayed in one of the eyeglass lenses. On the plus side, despite having 497 components, the entire device weighs just 51g and when worn, looks very much like a normal pair of eyeglasses.

Xiaomi also notes that the smart [eyeglasses](#) are still just a concept, thus it is not clear if the company plans to actually make and sell them.

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