# Article Title: Urbanista's Malibu Solar-Powered Speaker Might Never Need Charging

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# Article Content:

Ever since Swedish audio brand Urbanista first brought out its mightily impressive [solar headphones](https://www.wired.co.uk/article/urbanista-solar-los-angeles-headphones-review) that, yes, charged even while they were being used, WIRED has been hoping the company would take this tech and try it in a larger audio product. Now it has, and the result is a new portable wireless speaker, the [Malibu](https://urbanista.com/malibu).

The Urbanista Malibu, just like the brand’s [Phoenix](https://www.wired.com/review/review-urbanista-phoenix/) solar [earbuds](https://www.wired.com/gallery/best-wirefree-earbuds/) and [Los Angeles](https://www.wired.co.uk/article/urbanista-solar-los-angeles-headphones-review) [headphones](https://www.wired.com/gallery/best-wireless-headphones/), uses Exeger’s [Powerfoyle](https://www.powerfoyle.com/) solar cells to recharge the Bluetooth speaker’s battery. This means the Malibu can recharge while unplugged using both ambient indoor lighting and outdoor sunshine. The speaker also has an IP67 rating, meaning it’s fully waterproof and protected against sand, dust, and dirt—ideal for the beach.

The $149 (£149 or €169) [speaker](https://www.wired.com/gallery/best-bluetooth-speakers/) can be linked to another Malibu to form a stereo pair, and it comes in the obligatory black and a new Desert Gray. A chat with Mårten Sahlén, product director at Urbanista, reveals that the rugged design houses a 3,600-mA battery, which powers dual 10-watt amplifiers inside. That battery can be fully charged by the solar cells, but there’s USB-C charging too.

The accompanying app lets you customize the sound profile and keep track of the speaker’s live light-charging and historical data (should you be interested in how much free energy you’ve harvested over the product’s lifetime).

Urbanista says the solar speaker comes with a full-day battery reserve, which it says equates to a play time of up to 30 hours. But the question is how much longer the Malibu can pump out the jams while sitting in sunlight. We asked for this data, and the brand conducted some in-house tests for us. Urbanista used a curated playlist of songs and set its speaker at the volume it believes other brands are using for testing.

Apparently, the Malibu can extend its 30-hour play time by up to 15 hours with 50,000 Lux solar light charging, which is the level of outdoor light you’d find on an average sunny day. Solar light ranges from approximately 20,000 to 100,000 Lux, so the technical team at Urbanista decided to opt for “half-sun strength” for testing. Still, a total potential run time of 45 hours in full sun is enticing, if somewhat difficult to achieve in real life.

Lit Up

There are, of course, solar-powered speakers on the market from lesser known brands, such as [Abfoce](https://www.amazon.com/ABFOCE-Bluetooth-Waterproof-Shockproof-Speaker-Back/dp/B07YTG48P7/ref=sr_1_3) and [Cyboris](https://www.amazon.com/CYBORIS-Portable-Bluetooth-Amplifier-Generation/dp/B081SSDWGG/ref=sr_1_19), but what makes Urbanista’s model interesting is the significantly superior efficiency of the Powerfoyle solar cells. As long as you don’t completely drain the battery in one long listening session, the speaker can top up when not in use and extend the play time considerably. Sahlén offers three examples of battery drain if the Malibu is used in this way.

Scenario 1: If the speaker is used twice per week for a total of seven hours and all that time kept in complete darkness, the battery should last for up to 30 days.

Scenario 2: If the Malibu is used twice per week indoors in a well-lit window (20,000 Lux) for a total of seven hours, then in standby mode in the same window (20,000 Lux) for three hours, and in a less well-lit window (5,000 Lux) for five hours, the speaker battery will last up to six months before needing a traditional recharge.

Scenario 3: If the speaker is used twice per week in direct sunlight (50,000 Lux) for a total of seven hours, and then in standby mode in a well-lit window (20,000 Lux) for three hours, and in a less well-lit window (5,000 Lux) for five hours, the speaker should “never run out of battery power.”

# We’ll try to test such a bold claim when we can get a working Malibu unit to assess. When we spoke to the technical team at Urbanista, they said that the Malibu was still in the last stages of development, and that while the numbers were not final, they are “a good indication about the speaker efficiency and a ballpark of what can be expected.”

Sahlén points out that while the brand’s Los Angeles headphones could, in ideal conditions, increase its battery life even while being used, this is not possible with a wireless speaker. “A headphone has a reasonably constant power drain from the battery, almost regardless of volume,” he says. “Whereas, with a Bluetooth speaker, when you increase the volume, the power consumption is exponential. With any Bluetooth speaker, if you max the volume the battery runs out quickly. So here we have worked hard with finding higher-efficiency components and drivers so that the power drain is going to be slower.”

Perhaps even more interesting is that Giovanni Fili, the CEO of Exeger, tells me the company has improved upon the already impressive Powerfoyle solar cells it produces. “Since we launched Los Angeles, we’ve been continuing to increase the power efficiency. We increased indoor efficiency by almost 50 percent, but also outdoor in direct light by about 20 percent,” Fili says. “We’ve also exchanged some of the electron transfer materials inside the cell to make it more durable and more sustainable, which is important for this product and the ones that come after it.”