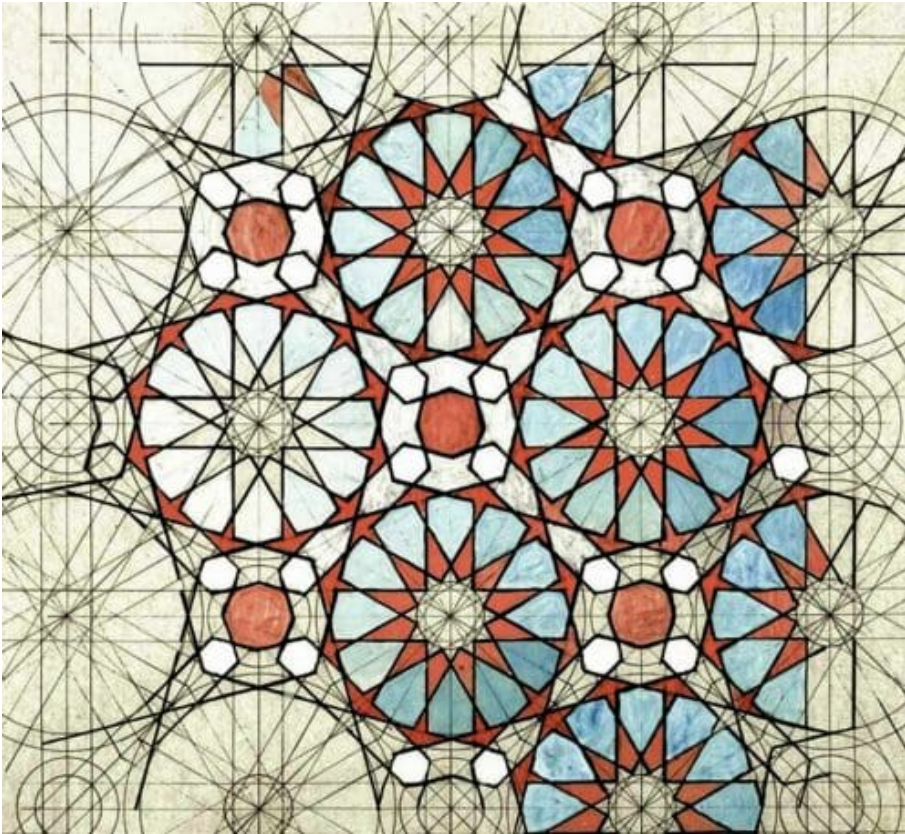


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Finally, The Golden Ratio Gets Its Own Coloring Book

Venezuelan artist Rafael Araujo creates meticulously detailed drawings of the Fibonacci spiral in nature—now, you can color along.



1/19



BY JOHN BROWNLEE
1 MINUTE READ

When it comes to design, the golden ratio is [mostly bullshit](#). Though designers sometimes use it, there's just no proof people prefer that precise spatial ratio in their buildings, interfaces, or art. But that's not to say the golden ratio doesn't exist: it's all around us, especially in nature's Fibonacci spirals, which you can find everywhere from the curve of a nautilus to the whorls in a chamomile flower.

For years, Venezuelan artist Rafael Araujo has been the undisputed master of golden-ratio art, meticulously hand-illustrating examples of the Fibonacci spiral—a geometric curlicue based upon a sequence of integers which describes the way things tend to grow in the natural world—without using a computer. His style lies somewhere between da Vinci's Renaissance fascination with nature, and the geometrical patterns of Escher at his best. His work is usually beautifully and vibrantly colored, but for his latest illustrations, Araujo wants you to color the Golden Ratio yourself: like many artists, he's getting in on the [adult coloring book craze](#).



Now on [Kickstarter](#), *The Golden Ratio Coloring Book* contains over 20 new illustrations of the Fibonacci spiral in nature, as seen in the flight patterns of butterflies, the growth of a seashell, and more. There are also meticulous representations of geometric patterns which don't usually exist outside of a computer, as well as a few drawings of designs informed by the golden ratio: for example, the floor tiles at [Spain's Alhambra palace](#).

According to Araujo, each of the illustrations was designed from scratch for *The Golden Ratio Coloring Book*, because his existing work was simply too complicated to make for good coloring. Even so, the images are so intricate you'd think a computer must be involved. But Araujo works like the geometers of old: All of his drawings are made at a drafting table with a compass and protractor. The work is incredibly arduous—Araujo says a single drawing can sometimes take him 100 hours—but the results are undeniably spectacular. And now they're just waiting for you to make a riot out of them with your Crayola.

You can preorder a copy of *The Golden Ratio Coloring Book* on [Kickstarter](#) for \$20 [here](#).

ABOUT THE AUTHOR

John Brownlee is a design writer who lives in Somerville, Massachusetts. You can email him at john.brownlee+fastco@gmail.com. [More](#)

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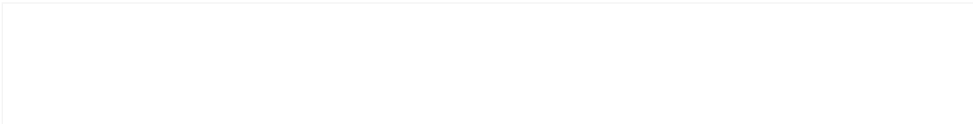


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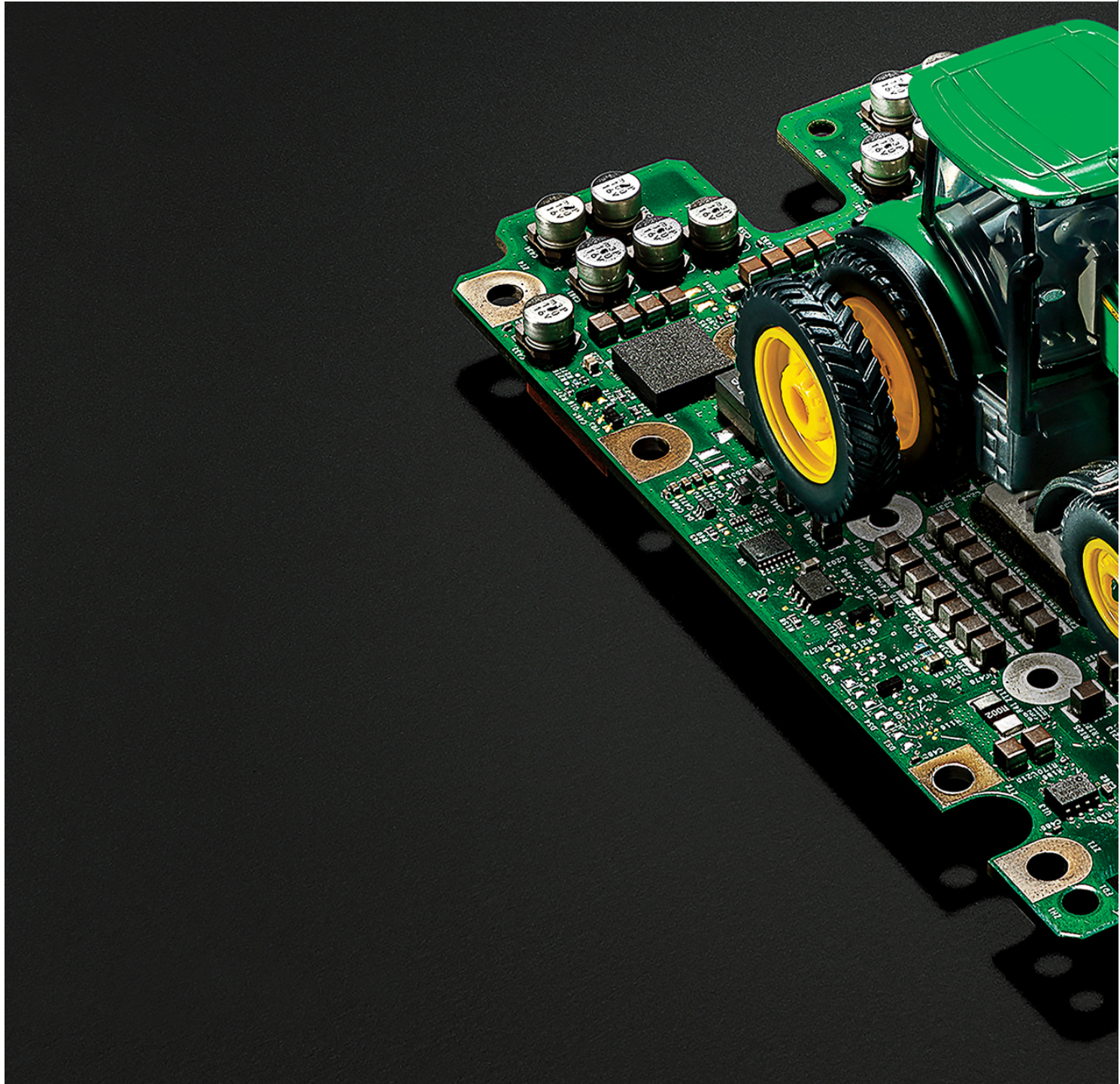
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12-12-19 | CONNECTED WORLD

The next generation of the internet is almost here—and it could even transform our farms

The 5G farm of the future will have real-time soil monitoring, connected tractors, remote veterinarian care, and more.



[Photo: Mauricio Alejo]



BY KEVIN DUPZYK
1 MINUTE READ

While the buzz around 5G is often focused on smartphones (and the technology’s promise of lag-free gaming and streaming), the cellular technology stands to hypercharge industries far beyond entertainment. With its high bandwidth, low latency (i.e., the ability to transfer lots of data with minimal delay), and high



remotely monitor weather patterns, livestock wellness, and soil nutrients, while autonomous driving and cloud computing could make equipment more efficient.

“Our ability to have machines sending data in both directions is really important,” says Lane Arthur, John Deere’s director of digital solutions. Add to it the fact that the U.S. farming industry has lost roughly 7 million workers since the 1950s, and you have a new frontier for Silicon Valley’s problem solvers: the farm of the future.

5G BY THE NUMBERS

5x: How much faster 5G’s initial peak speeds will be, compared to 4G (aka LTE)

2035: The year 5G’s “full economic effect” will be realized globally, according to Qualcomm

33: The number of U.S. cities that currently have 5G connectivity*

Sources: “What You Need to Know About 5G,” Consumer Reports (5G speed); Qualcomm 5G Economy Study (2035); “Here Are the Cities Where You Can Access 5G From Major U.S. Carriers Right Now,” Digital Trends, *as of 10/18/2019 (5G cities)

A version of this article appeared in the [Winter 2019/2020](#) issue of Fast Company magazine.

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