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Elon Musk is building a human-like robot: Does anyone else think this is a really bad idea?

Yep, he's at it again. Apparently, launching a sports car into space wasn't enough. Now, he's hoping to unleash an army of labor-saving bipedal robots into our homes and businesses.



By [David Gewirtz](#) for [DIY-IT](#) | August 23, 2021 -- 13:41 GMT (06:41 PDT) | Topic: [Robotics](#)

First Law: *A robot may not injure a human being or, through inaction, allow a human being to come to harm.*

Second Law: *A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.*

EXECUTIVE GUIDE



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A the technology and market drivers behind the \$135 billion robotics market.

Third Law: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

Any science fiction enthusiast of a certain age would recognize these as Isaac Asimov's [Three Laws of Robotics](https://en.wikipedia.org/wiki/Three_Laws_of_Robotics) (https://en.wikipedia.org/wiki/Three_Laws_of_Robotics), as described in the "*Handbook of Robotics*, 56th Edition, 2058 A.D." Asimov introduced these laws as part of his robot series, and they became the Asimovian equivalent of the [Prime Directive](https://en.wikipedia.org/wiki/Prime_Directive) (https://en.wikipedia.org/wiki/Prime_Directive) for his fictional universe.

Asimov wanted to write about robots integrated into everyday life. Prior to the early 1940s, when he began his series, most robot stories were of robots run amok. Even though the techniques we use today for [artificial intelligence](https://www.zdnet.com/article/what-is-ai-heres-everything-you-need-to-know-about-artificial-intelligence/) (<https://www.zdnet.com/article/what-is-ai-heres-everything-you-need-to-know-about-artificial-intelligence/>) and [machine learning](https://www.zdnet.com/article/what-is-machine-learning-everything-you-need-to-know/) (<https://www.zdnet.com/article/what-is-machine-learning-everything-you-need-to-know/>) development weren't part of any educational curriculum, Asimov postulated the concept of intelligent robots, and then gave them a set of guiding principles around which they were to make all decisions.

Obviously, the implied AI he had running in those robots was even more sophisticated than what we have today. But the idea that robots were required to have safety protocols before being unleashed on consumers might be something we want to take very seriously.

Especially if Elon Musk's [Tesla Bot concept](https://www.zdnet.com/article/tesla-bot-a-concept-humanoid-robot-embedded-with-teslas-vehicle-ai/) (<https://www.zdnet.com/article/tesla-bot-a-concept-humanoid-robot-embedded-with-teslas-vehicle-ai/>) is to be taken seriously. Apparently, Tesla expects to have a 5' 8" 125 pound bipedal robot ready to enter testing sometime next year. Because...of course it does.



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At the recent Tesla Day event, Musk described (<https://www.youtube.com/watch?v=HUP6Z5voiS8>) Tesla as the biggest robotic company in the world, given how many autonomous (or at least marginally autonomous) vehicles the company has sold. According to Musk, "Our cars are like semi-sentient robots on wheels."

Hair. Back of neck. Raised.

Of course, he didn't mention that the National Transportation Safety Board cited [Tesla's autopilot](#) (<https://www.zdnet.com/article/tesla-owner-banned-from-driving-and-its-not-over-autopilot/>) for contributing to a fatal 2019 [crash with a tractor trailer](#) (<https://www.zdnet.com/article/tesla-fatal-model-3-crash-autopilots-operational-design-condemned/>) and [another with a Chevy Tahoe](#) (<https://www.nytimes.com/2021/08/17/business/tesla-autopilot-accident.html>). So far, [TeslaDeaths](#) (<https://www.tesladeaths.com/>) (yep, that's a site) reports nine verified autopilot-related deaths.

Now, ask yourself if you want an adult-sized bipedal robot in your home. Personally, though I loved Asimov's stories and dreamed of having my own robots, I've grown to understand one simple fact: robots are stupid.

I know this because my house is filled with robots, mostly in the form of the [3D printers I review for ZDNet](#) (<https://www.zdnet.com/article/diy-it-project-3d-printing-discovery-series/>). I have a long thin room in my house, called the Fab Lab, which is where I keep the 3D printers. Each printer is on a rolling cart, and each cart has a space under the lower shelf that a robot vacuum cleaner can easily get into when cleaning.

The other day, I was testing out yet another 3D printer. That one has a filament runout sensor which is supposed to stop the machine if the filament spool is empty. But even though the filament had run out, the filament runout sensor had somehow failed, and the

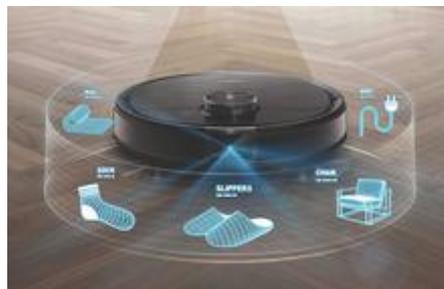
robot didn't know. The printer head was still moving back and forth, up and down, trying desperately to print something in thin air.

Robots are stupid.

Unlike my pup who likes to run around the house and pee everywhere when he gets excited, my 3D printers stay where they've been placed. They can't run around the house and poop filament.

But then there's my robot vacuum.

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I ran into the Fab Lab -- where the 3D printing robot was going through its futile motions -- because there was an insistent, repetitive banging sound coming from the room. Directly under the 3D printer's cart was my three-inch tall, 18-inch across little vacuum cleaning robot, banging and banging and banging itself against the baseboards.

Even though its manufacturer touts that the device's AI is smart enough to not get tangled in cords, this cleaning robot had gotten tangled in the cords. I realized I had two robots, one on top of the other, both trying very hard to do their jobs -- and failing miserably.

Robots are stupid.

So let's get back to the Tesla Bot concept. This thing is supposed to be able to carry 45 pounds, lift 145 pounds, and truck along at up to five miles an hour. That's almost twice typical human walking speed, which is [about 3.1 miles per hour](#)

([h](#) [Cookie Settings](#) [wiki/Preferred_walking_speed](#)).

In case this worries you, Musk says they're designing Tesla Bot so (and I'm quoting him directly here) you can, "Run away from it and most likely overpower it. Hopefully, that doesn't happen. But you never know. Five miles an hour. If you can run faster than that, you'll be fine."

Because, yeah, that's encouraging.

Then he went on to talk about making sure the robot can navigate in the real world. He used one example of using a wrench on a part, and another of being sent to the store for groceries.

Wait. What?

So, you're going to buy this \$50,000 robot (he never mentioned prices, but let's get real: it won't be cheap) and you're going to use it to put some intrepid Instacart gig worker out of work? Because it's safer to send a robot down a street, unescorted, and into a store? Or are you supposed to buy it a Tesla car and let it drive your Tesla to the store?

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How is this thing supposed to defend itself? If it's a machine that you'll be able to (probably) overpower, doesn't that mean that your expensive new toy might be attacked by kids, criminals, activists, or anyone else pissed that a humanoid robot is walking around unescorted? If it's defenseless, will Tesla offer AppleCare-like TeslaCare, where you can bring your busted robot in a few times a year for repair? And if it has defenses, how scary and Terminator-like will that be?

I can think of projects around the house I'd like a robot to help with. Making lunch would be a great idea. But a kitchen robot doesn't need to have legs. It can have wheels. If it could take items from the fridge, open them up, and dole them out on plates, that might be nice.

B [Cookie Settings](#) when work involves chopping, how comfortable would you be with a

125 pound robot waving a knife around in the air, just because you don't want to slice your own celery for chicken salad?

Seriously, I would love a robotic cook. It might work if we fenced in the room while the robot was at work, and as soon as it went into sleep mode, the room once again became accessible. But given how often I've seen my 3D printers run amok, I certainly wouldn't want to count on some Tesla algorithm to keep me and those I love away from that knife.

Okay, so what about simply carrying groceries in from the car? Would it avoid stepping on the cat? Could it avoid kicking the dog by accident? Would you have to put your toddler into its crib beforehand? How much safety prep would you need to do in order to have this thing help you out for five minutes?

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The more I think about it, the more I don't think the Tesla Bot (or any other humanoid robot) should ever be intended for home use. I can certainly see industrial applications for a general purpose humanoid robot. Assuming they don't [rise up and try to kill us](https://www.youtube.com/watch?v=Cf2reFNRX-A) (<https://www.youtube.com/watch?v=Cf2reFNRX-A>) all in our sleep, a humanoid robot could be useful on a factory floor or in a warehouse.

But at home? Even if manufacturers tried to inculcate them with The Three Laws, it's unlikely that the devices will work reliably enough to be able to comply. After all, my vacuum was sold with the clear promise that its AI knew how to avoid wires and cables, and still, it was down there, beating its head against the wall, because it couldn't seem to e [Cookie Settings](#) record it didn't know to avoid.

What do you think? Is the Tesla Bot the future of scientific advance, or another Frankenstein's monster? Are we getting Mr. Data or an army of Daleks? Let us know in the comments below.

ROBOTICS

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How the pandemic has reshaped AI, robotics, and automation (ZDNet YouTube)
(<https://www.youtube.com/watch?v=RZo7a1Sq04Y>)

Want to work with robots all day? Here's what you need to do (TechRepublic Premium)
(<https://www.techrepublic.com/article/want-to-work-with-robots-all-day-heres-what-you-need-to-do/?ftag=CMG-01-10aaa1b>)

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