

Amazon develops new technologies to enhance employee safety

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Teams at the Amazon Robotics and Advanced Technology labs in both Seattle, Washington, and northern Italy have begun diligently testing out new technology they hope will improve safety for employees by carrying

out tasks such as transportation of carts, packages and totes through Amazon facilities.

One common activity involves the movement of totes to transport products through robotic fulfillment centers. The latest technology utilized in this area uses motion-capture techniques to learn from the movement patterns of volunteer employees in a lab environment. So far, this technique has proven more useful in terms of helping to design safer movement technology than the simpler tools adopted historically by ergonomists.

For example, simply altering the position of handles on totes could increase employee safety by helping human workers to avoid placing their hands into harm's way. Another benefit concerns saving employees the task of constant bending and stretching, a role filled by Ernie, a new robotic arm capable of removing products from robotic shelves for delivery to human workers. The Amazon research team notes that while these new processes don't necessarily save time, they at least contribute to better workplace security.

In order to ensure employee satisfactions, Robotics and Advanced Technology research teams periodically consult with Amazon employees regarding how beneficial these developments have been thus far. At this point in time, general employee feedback has been positive.

On a slightly different front, Bert represents another type of new Amazon robotic technology. As an Autonomous Mobile Robot (AMR), Bert is being designed to integrate with human workers on the Amazon production floor. Ideally, a [robot](#) like Bert would be able to independently navigate across the workspace to transport products, as needed. In this way, Bert could join Ernie in decreasing physical strain on human laborers.

In fact, two more [autonomous robots](#) called Kermit and Scooter also represent significant advantages to easing the burden on the [employee](#) workforce. However, unlike Bert, who stands to carry all types of products, these two robots would focus on transporting the carts that carry empty packages and totes through the facility. At this time, Amazon aims to deploy Scooter in at least one company facility within 2021.

On the other hand, Kermit follows lines of magnetic tape to determine whether the robot should slow down or speed up while moving items across a facility. Currently further along in development than Scooter and already undergoing testing at several US worksites, Kermit should enter at minimum a dozen Amazon locations across America this year.

Overall, researchers seek to not only lessen physical duress for [human workers](#) but also to allow those employees more time to focus on tasks requiring more critical thinking skills.

More information: Staff, Amazon. "New Technologies to Improve Amazon Employee Safety." Amazon, 13 June 2021, [www.aboutamazon.com/news/innov ... azon-employee-safety](http://www.aboutamazon.com/news/innov... azon-employee-safety)

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