

# John Deere Reveals Fully Autonomous Tractor at CES 2022



**MOLINE, IL (January 4, 2022)** — During a press conference at CES 2022, John Deere revealed a fully autonomous tractor that's ready for large-scale production. The machine combines Deere's 8R tractor, TruSet-enabled chisel plow, GPS guidance system, and new advanced technologies. The autonomous tractor will be available to farmers later this year.

The autonomous tractor serves a specific purpose: feeding the world. The global population is [expected](#) to grow from about 8 billion to nearly 10 billion people by 2050, increasing the global food demand by 50%. Furthermore, farmers must feed this growing population with less available land and skilled labor, and work through the variables inherent in farming like changing weather conditions and climate, variations in soil quality and the presence of weeds and pests. All of these factors impact a farmer's ability to farm during the most critical times of the year.

The autonomous tractor has six pairs of stereo cameras, which enables 360-degree obstacle detection and the calculation of distance. Images captured by the cameras are passed through a deep neural network that classifies each pixel in approximately 100 milliseconds and determines if the machine continues to move or stops, depending on if an obstacle is detected. The autonomous tractor is also continuously checking its position relative to a geofence, ensuring it is operating where it is supposed to, and is within less than an inch of accuracy.

To use the autonomous tractor, farmers only need to transport the machine to a field and configure it for autonomous operation. Using John Deere Operations Center Mobile, they can swipe from left to right

to start the machine. While the machine is working the farmer can leave the field to focus on other tasks, while monitoring the machine's status from their mobile device.

John Deere Operations Center Mobile provides access to live video, images, data and metrics, and allows a farmer to adjust speed, depth and more. In the event of any job quality anomalies or machine health issues, farmers will be notified remotely and can make adjustments to optimize the performance of the machine.

### **About Deere & Company**

Deere & Company ([www.JohnDeere.com](http://www.JohnDeere.com)) is a world leader in providing advanced products, technology and services for customers whose work is revolutionizing agriculture and construction — those who cultivate, harvest, transform, enrich and build upon the land to meet the world's increasing need for food, fuel, shelter and infrastructure.

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