



Unit is designed to pull loads up to 800 lbs. at an adjustable speed of 1 to 3 mph, with simple controls.

## Company Aims To Simplify Farm Robotics

A few years ago, in California's Central Valley, Suma Reddy and Dominic Milano met to brainstorm ideas for agricultural robotics. They were focused on the practicality of moving materials and crops, but also wanted a level of intelligence, such as the ability to follow a row or a person.

"We were talking to growers and had an 'aha' conversation," says Reddy. "A table-grade farmer who was an early adopter of

technology told us that six years ago, the types of small robots they needed were \$12,500. Now they're \$20,000. If they needed 50, 80 or 100 of these robots to manage their farm, it's really become a stretch."

Also, many farm robots are difficult to use, require extensive worker training, and are heavy and bulky, often weighing up to 400 lbs.

"This farmer told us straight out, 'Create something simpler.' As engineers, we like to

think about complexity, so we had to rethink our approach."

Ultimately, Reddy (CEO) and Milano (CTO) founded Gather Ag, a company poised to develop a straightforward device that could move material by hitching a wheelbarrow, a small trailer or, in the future, a mower or a lightweight sprayer.

"It was the genesis where we decided our ethos was going to be 'simplicity, simplicity and simplicity,'" Reddy explains.

The Gather Ag Rover integrates into farms with minimal setup and training. Simply push a button, and it moves. It has a compact body weighing only 140 lbs. GPS isn't required, as it uses computer vision to travel up and down rows or follow a person. In the company's early stages, the robot's cost is approximately \$10,000 to \$12,500, but Reddy and Milano are focused on driving down the price.

The 3-wheeled device features one swivel wheel for sharp turns in crop rows. It's powered by two electric motors and a lithium-ion battery, and it's been tested to run for 8 hrs. with a 250-lb. payload. The 39-in. wide unit is designed to pull loads up to 800 lbs. at an adjustable speed of 1 to 3 mph.

Controls are simple: green for go, red for stop. To program the unit to follow a person, stand in front of the robot, wait for it to activate, then press the green button with your foot. When the person stops walking, the robot will stop as well.

Gather Ag is also making its prototype available for high school-based farm robotics

competitions in 2026, where students build robots from scratch during the school year.

"Often, the younger generation of farm workers' sons and daughters aren't interested in typical farm work, plus we all know farm ownership is aging," Reddy says. "These school robotics programs offer a new and exciting way for these young adults to give agriculture a legitimate second look."

Gather Ag is completing its manufacturing process in California and hopes to sell and place up to 100 robots over the next couple of years.

"We believe it's well-suited for small farms and school programs now," Reddy says. "The next step is building more and advancing the autonomy. We intend to make them more rugged and robust to withstand the rigors of farm terrain and the tasks that come with it. We also want to work in partnership with other universities to combine innovations and technologies that could work in tandem with our base platform."

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3-wheel compact robot weighs just 140 lbs.



Deere 4320 with right-side steps, not available OEM.

## Open Station Add-Ons Look OEM

When Paul Proksch restores a tractor, he wants it to look right. John Deere open-station tractors are a favorite, so when the company discontinued some add-ons like the slow-moving vehicle bracket, he tried salvage yards without luck. Finally, he took matters into his own hands.

"I welded one together and took it to a local fabricator," says Proksch. "He made up 12. I needed one for a 4320 I was working on, and offered the rest for sale on Facebook Marketplace. I restore one or two tractors a year, so I don't really care if I sell any."

Proksch also fabricated right-side steps for some of his Deere restoration projects. Left-side steps are available from Deere, but the original right-side step was barely a toe hold. He designed his right-side steps to match the left, including a custom-bent handrail.

Proksch admits he's fussy about restorations. He's completed around a dozen, mostly open-platform. He details each tractor carefully and, when finished, isn't afraid to ask a good price.

"To do it right, you have to spend some money," says Proksch. "The 4320 has all-new rims and radial tires, extra steps, and a

professional paint job. On top of that is my labor. I spent all summer on it. I'm asking \$41,900, but it doesn't really matter if it sells. If not, I'll keep it."

Proksch posts tractors he has for sale on Tractor Tuesday. In late November, they included a 1979 4240, the 1972 4320, and a 1987 4050, all open station.

Proksch likes the Tractor Tuesday website. There's no listing fee. The buyer pays a fee in addition to the final bid amount, which is paid to the seller.

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Slow-moving vehicle add-on.



Inner wing wheel is raised, allowing planter to flex.

## Planter Kit Keeps It In The Ground

The Terrace King from E.J. Swihart maintains positive depth control even when planting across a terrace. The wheel kits restore up to 12 in. of row travel, preventing skips, reducing weeds, and increasing yields. They use existing hydraulic cylinders and hardware, maintaining planter lift when needed and lifting the wheels above the field surface when not needed. They solve a problem caused by ever-larger planters.

"A friend of mine switched from a 16-row to a 24-row planter and encountered a problem," recalls Swihart. "End-row units would lift up on terraces and drop seed on the soil surface, not in the soil."

Swihart came up with a simple solution and, after describing it to his friend, was told to fabricate and install it on the new planter.

"My friend identified the wheels on the planter as the problem," says Swihart. "He needed them when not planting, but not when he was planting. They restricted the ability of the planter to flex with the field surface."

The inner wing wheel caused row units to lose ground contact at the wing's end. The two center wheels caused row units to lose contact near the wing hinge points. Although essential for lifting and carrying the planter, they were problematic during planting.

Swihart's solution was to modify the carrier arms so the wheels lifted above the ground during planting. When the planter was lifted, the arms returned to their weight-bearing position.

Since building his first set of Terrace Kings in 2020, Kansas-based Swihart has sold more than 170 kits in Oklahoma, Missouri, Nebraska and Iowa. They're now available for all major planter models from John Deere, Case and White/AGCO. Swihart says he's working his way through other planter models.

"My customers are pretty happy with them," says Swihart. "You can put them on in a few minutes. I've even installed them in the field. They're a simple, cost-effective solution."

Prices start at \$1,500 per kit. Swihart sells them directly and through an expanding network of dealers.

"Give us a call if you have questions or a different brand of planter," says Swihart. "We'll work on anything."

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