Reid made the entire leaf transfer ducting from nested 5-gal. plastic buckets.

Homemade Heavy-Duty Leaf Cart

When Jerry Reid built his leaf cart nearly 50 years ago, he raked leaves into it and pushed it to dump them. At 89, he climbs onto his lawn tractor and lets it do the work. In the years in between, the leaf cart evolved as Reid tried different options.

The cart began as a simple basket with a frame made from 1-in. electrical conduit. He attached cattle panels to the frame and lined them with hardware cloth. A pair of wheels salvaged from a push mower let him push it around the yard. Sheet metal pressed into the corners helped the wheels carry the load.

"The next change was to add a tongue from some salvaged aluminum square tubing, so I could pull it around the yard with my mower," recalls Reid. "At the time, I could still pick the cart up to dump it."

As manhandling it became more difficult, he added 2-in. PVC pipes to the sides. They allowed him to insert a handle made from 1 1/2-in. PVC pipes. This gave him leverage when unhooking it from the mower and dumping it.

A few years ago, Reid bought a new Husky lawn tractor with an attached leaf catcher. He soon modified it by adding a large tube from the side discharge to the catcher.

"I used a propane torch to bend a 5-gal. bucket into a transition from the mower-side discharge to the tubing," says Reid. "I cut the bottoms off several more buckets, stacked them over the transition bucket, and then used 10-in. adjustable AC ducting to carry the leaves to the leaf catcher."

With two acres of oak trees, Reid quickly realized he needed more capacity in his leaf catcher. He gave the modified Husky leaf catcher to his son-in-law and adapted it for his son-in-law's Troy-Bilt.

Reid returned to his leaf cart and modified it to work with his new Husky. He made a new transition bucket and then built the entire leaf transfer ducting from nested 5-gal. plastic buckets.

"I attached a bucket lid to the last bucket to direct the leaves into the basket," says Reid. "The Husky pulls the cart in line with the ducting. When it's full, I pull it to my leaf pile, unhook it and dump."

The new system worked great until it became clogged with wet leaves. Although Reid had an access hole in the transfer bucket chain, he wanted to avoid future clogs. He designed an impeller blade to replace the lawn mower blade. It is a 10-in. dia. steel plate with six angle-iron blades bolted to it, providing a 22-in. dia. cut. It shreds even wet leaves.

"I was a machinist by trade, so I knew how to balance a mower blade," says Reid. "I laid out the bolt holes from the center, so everything was the same distance from the center. After bolting the angle iron in place, there's a little vibration, but not enough to be a problem."

With his cart, his mower and his impeller blade, Reid keeps his oak leaves cleared and ready for use.

"I have a 75 by 75-ft. garden, and I use shredded leaves as mulch. They keep the grass down."

Contact: FARM SHOW Followup, Jerry Reid, 173 Henry Taylor Rd., New Market, Ala. 35761 (ph 256-519-0819).

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"We make a dedicated, semi-flexible solar panel for the golf carts," says Balan. "It's precisely engineered to weigh around 30 lbs."

DIY Solar Conversion Kits

Forget high-priced fuel and noisy engines. Brett Belan and his wife, Kira, can set you up with solar power. As co-founders of Solarrolla, they've converted every type of vehicle to run on solar power, from golf carts and lawn mowers to scooters, tractors and vans.

Today, the company offers conversion kits for golf carts and multi-panel solar roofs for vans. They also consult with those who prefer to do it themselves.

"I converted my first golf cart to solar 17 years ago," says Balan. "At that time, I didn't realize its potential utility for things like powering electric tools or recharging battery-powered tools. Add an inverter, and they're so useful."

With the solar-powered golf cart under his belt, Balan and his wife moved on to converting a VW bus to electric and powering it with solar energy.

Soon, he and Kira were converting vans to electric and solar power. They started Solarrolla in Oregon in 2018. Later, they moved to northern Wisconsin to be closer to Balan's father and brought the business with them.

"We custom-engineer solar tops to fit any vehicle you can imagine," says Balan. "Our awning systems can deliver up to 100 miles of EV range per day or serve as silent, mobile power stations."

Converting older golf carts into solar utility vehicles is a major part of the business. They handle custom projects and also convert some for sale.

They've also developed DIY solar top kits for common older Club Car golf carts, which Balan appreciates for their simplicity. He carries that simplicity into his tops.

"We make a dedicated, semi-flexible solar panel for the golf carts," says Balan. "It's precisely engineered to weigh around 30 lbs."

A 300-watt solar kit starts at $1,750. Balan notes that with 5 to 6 hr. of sunlight, it can produce 1,800 watts per day. The aluminum frame supports a slightly curved solar panel designed to shed water. The kit includes a waterproof MPPT charge controller to maximize solar output, with a power-in and power-out display. A lithium battery is an option.

"There are so many different types of golf carts. We're developing adapter packages and having our own battery made so we can offer different accessories," says Balan. "We'll offer the top, the battery and controllers, plus inverters or other extras."

While he can't yet claim IKEA's ease of assembly, he believes they're getting close to it.

"We want to put control in the buyer's hands," says Balan.

While Solarrolla continues to take on custom projects, it's moving toward more standardized solar top systems that can be adapted to the vehicle. Balan is currently focusing on a solar top for BrightDrop 600 electric delivery vehicles. He believes the BrightDrop 600, recently discontinued by General Motors, will make an ideal solar-powered camper.

"They have a 275-mile range, which is great for campers," he says. "We're hot and heavy into a design for them with panels that automatically pull out when you arrive at a campsite. We can put a three-panel solar top on for about $30,000."

Whether for a BrightDrop 600, a golf cart or some other vehicle, Balan is eager to discuss the project. He encourages face-to-face meetings.

"People come to us and want us to do a conversion, but they don't really know what they want," he says. "Meeting with them is the ideal way to find out what they want and what they need. Then we can give them a quote and move forward."

Contact: FARM SHOW Followup, Solarrolla (ph 541-603-3559; belan@solarrolla.com; www.solarrolla.com).

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