Matt Goode converted this Jeep to electric power as part of an FFA project.

The Jeep's body was in poor condition and would have required major restoration, so he bought a new one made from fiberglass.

Teen Gives Old Jeep New Life With Electric Motor

When Matt Goode attends Iowa State University this fall, he won't have to spend money on gas traveling from his off campus apartment to classes. He'll drive the Jeep that he converted to electric power as part of an FFA project. His father, Steve, supervised the project and helped fund it.

"Dad and I are on the nerdy side," admits the Coggon, Iowa, native. His father is an engineer, and they enjoy working on projects in their hobby farm shop.

After attending a meeting about home-built electric vehicles, Goode decided to restore and convert an old Jeep that his father purchased a decade ago.

Before they could begin the conversion they had to remove the rust and sludge. They also rebuilt the axles and transmission.

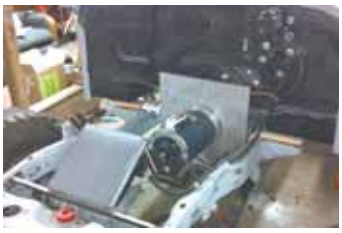
Because of the poor condition of the Jeep body, which would have required major restoration, they decided to purchase a new fiberglass body for $3,500. They also knew it would be lighter.

Under his father's watchful eye, he welded and fabricated parts and learned a lot about electrical when he wired the Jeep. He's proud of how neat and compactly he fit the bank of 16 6-volt batteries into the back of the Jeep. The electric motor that replaced the engine is coupled directly to the transmission.

Apparently, FFA judges were impressed too. Goode earned a first place in Iowa and gold star at the national competition.

In addition to the trade skills he learned, Goode emphasizes that he learned about communicating and networking with neighbors and businesses who got involved with suggestions and contributed scrap materials.

The Jeep cost $8,000 to $10,000 to convert.



The electric motor that replaced the engine is coupled directly to Jeep's transmission. A bank of 16 6-volt batteries fit compactly into back of vehicle.

Lithium batteries would greatly increase the distance, but cost two to three times as much as standard batteries.

"It gets up to 65 mph," Goode says, "but only goes about 30 miles per charge."

While the short traveling distance isn't practical from Goode's rural home, it will work well for getting around at college. Goode plans to move the batteries from the back to underneath to the frame and to add a soft top to close the Jeep up for winter.

Contact: FARM SHOW Followup, Matt Goode, 2097 Linn Delaware Rd., Coggon, Iowa 52218 (ph 319 213-1246; mattgoode0@gmail.com).

He Specializes In Everything Electric

Jim Coate got hooked on the idea of battery-powered vehicles 20 years ago. That led to a business supplying parts and know-how to anyone interested in converting a vehicle to electric.

Coate carries parts for electric tractors and gas-to-electric conversions for cars, trucks and tractors. If parts aren't available off the shelf, he rebuilds, repairs or has them made in limited production runs.

"I carry parts for Elec-Trak tractors once made by General Electric, an electric riding mower briefly made by John Deere, WhisperMow, Wheel Horse, and other electric garden tractors," says Coate. "I also do custom conversions of small farm tractors to electric."

Coate has an electrical engineering degree from Tufts University. He got into the electric tractor parts business when a friend's father offered him an Elec-Trak tractor and a second one for parts. He later acquired parts and the original engineering drawings from the only remaining Elec-Trak parts and service provider. Gradually his business expanded to other brands.

Consultation is included in the package for customers buying controllers and other parts for converting vehicles to battery power. Workshops are offered on vehicle conversions.

Coate encourages FARM SHOW readers with an interest in electric tractors and other vehicles or in conversions to contact him with questions. If parts are needed or parts need to be rebuilt, include pictures and details with an email or call to discuss.

"Have the brand and model and as many details available as possible," says Coate.

He asks readers who attempt to contact him in November to be patient. He and his wife are expecting a baby mid-month, and there may be a slight delay in response.

Contact: FARM SHOW Followup, Free Range Electric, 201 Short St., Waynesboro, Va. 22980 (ph 540 941-1005; www.freerangeelectric.com).

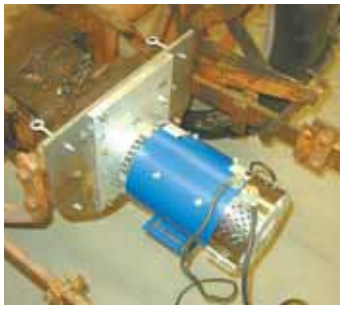


Photo above shows a restored Elec-Trak tractor. Photos at right shows how DC motors replace engines in vehicles and couple directly to existing transmission. Coate supplies parts and know-how to anyone interested in converting vehicles.

All-Electric ATV Prototype

A prototype all-electric FarmDogg from Rogue Rover will be making the rounds on farm fields and back roads in the Pacific Northwest this winter. Melissa Brandao, Rogue Rover CEO, says the company plans to produce 200 units for sale in 2015.

While some modifications may be made based on field testing, the basic platform is expected to be unchanged. The FarmDogg has a bench seat and step-through design. It has 10 kW hub motors in the rear wheels. The 3.2 kW battery pack is housed in the floor between the operator and passenger's feet with space for a second pack.

"The FarmDogg is designed for easily pulling and replacing the 64-lb. battery pack," says Brandao. "The Samsung battery pack has a 2 to 3 hr. recharge on 110-volt current. One charge is good for approximately 4 to 6 hrs. or a 20-mile range with a maximum speed of 15 mph."

The FarmDogg has a carrying capacity of 500 lbs. and can tow between 500 and 750 lbs. It's 48 in. wide tire-to-tire, 48 in. high and 84 in. nose to tail, says Brandao.

"We designed it with a low center of gravity for safety," she says. "It is beefy, and it has a lot of torque. We think the prototype is a great starting point.

"The base price will be $9,999," says Brandao. "We'll start taking orders as we get the prototype out for demonstrations this winter."

Contact: FARM SHOW Followup, Rogue Rovers, LLC, 258 A St., #1-74, Ashland, Ore. 97520 (ph 541 708-2199; www.roguerovers.com).

Prototype all-electric FarmDogg ATV will be making the rounds on farm fields in the Pacific Northwest this winter. The company plans to produce 200 units for sale next year.