

Student-Built Mobile Chicken Coop

Thanks to some creative high school students, Chad Jordan has a new 8 by 20-ft. mobile chicken coop made from an old house trailer.

Jordan had suggested the project to his former teacher, Christopher Dodds, at McClain High School in Greenfield, Ohio.

They were able to buy an old auctioneer's camper for \$125. Because the floor and the bottom of the camper were in poor condition, students cut the camper off, removing everything down to the trailer frame. The initial plan was to sell the metal for scrap and buy new materials to build the coop. After putting in new treated stringers and a new floor, however, a couple students suggested putting the camper back on. They covered the floor and walls with 4 by 8-ft. sheets of 1/4-in. laminate flooring that Dodds purchased for \$5 apiece.

"The sheets have a slick surface for easy sweeping and washing," Dodds says. The flooring also worked well for the two ramps that lead up to two small doors for the chickens to get in and out of the trailer.

Students built nesting boxes on three of the walls out of particle board with pvc pipe roosts and installed pvc sleeping roosts on the other wall. To make the roof waterproof, they screwed on a piece of rubber roofing

left from a local roofing job and attached rain gutters and a downspout to catch rainwater and run it into a 55-gal. barrel.

The whole project cost \$450 and took 52 students about five weeks. Because their research included watching a couple of related Modern Marvels episodes on cableTV, it was submitted to a Time Warner contest. Dodds received a Time Warner Teacher of the Year Award and \$5,000 for the school and himself.

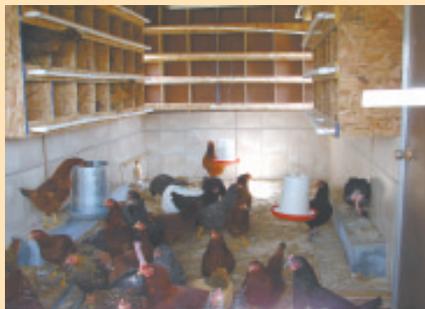
Dodds notes that the award is a reflection of his students' work and problem-solving ability. They figured out how to brace the camper walls and lift it off with manpower - 15 people - and how to reuse the camper.

Plus they satisfied Jordan and his 100 chickens. "It worked out a lot better than he thought it would. He likes the height because it's low and easy to get into. He got his money's worth," Dodds says. With windows and doors the camper is well ventilated, and the doors can all be closed to keep the chickens safe from predators at night.

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High school students in Ohio converted this house trailer into a mobile chicken coop.



Three of the coop's walls are lined with nesting boxes built out of particle board. The fourth wall has pvc sleeping roosts. The floor and walls are covered with 4 by 8-ft. sheets of 1/4-in. "easy clean" laminate flooring.

Giant Self-Propelled Splitter Inspires Neighbor

When Mark Froehlich fires up his log splitter, no tree in the area is safe. His 3-wheel splitter can handle about anything he can lift onto it.

Froehlich's boom can handle up to 1,000 lbs. "I've split pieces 4 ft. across," says Froehlich. "The ram has a 48-in. stroke and is built to the specifications of a 42-ton splitter."

Froehlich built the splitter from an old 3-wheeled pruning rig with a cherry picker basket on a telescoping boom. The engine was good, as were the hydraulic valves and cylinders. He modified the cherry picker basket arm to serve as a pickup boom for handling large logs.

"All the controls were in the basket, so I moved them to an operator's station that I built over the engine," says Froehlich. "I replaced all the hoses, but everything else, including the hydraulic motors on the three wheels, were fine."

He braced the boom and doubled the thickness of the 4 by 4-in. upright. "I figured if the cherry picker basket could support a 200-lb. man, this thing should be able to handle a 1,000-lb. chunk of wood."

The original arm that held the basket is hinged to the vertical post. A 24-in. cylinder raises and lowers the arm.

"I mounted a 22 1/2-ft. long, 18-in. high, tempered structural beam across the top of the chassis," says Froehlich. "The ram mounts on it, and the 12-in. wedge is welded to it."

Froehlich says he was warned the structural beam wouldn't hold up so he reinforced it, lining the top where the ram travels with used grader blades. A second plate reinforces the wedge.

"I used the original valves on the cherry picker to control all the hydraulics," says Froehlich.

Froehlich's neighbor, Richard Freid, liked the splitter but decided he didn't need one

quite as big. He built a down-sized version with a 9-ft. long, 8 by 8-in. H-beam that serves as both the splitter base and the main frame of the splitter. At the rear, the H-beam extends past the axle to support a Kohler 8 hp engine and 3,000-lb. hydraulic pump.

The pump supplies power to the hydraulic motor connected to the rear axle pinion gear and the three boom cylinders.

"I can disconnect the pinion on the rear, and remove the entire front wheel assembly to pull it like a trailer," explains Freed.

To steer the splitter when under its own power, Freed uses the 4-in. splitter ram itself. He installed a linkage between the ram and a bell crank (used for changing direction on a pivot point) on the front wheel assembly.

"When I extend the ram, it steers to the right and then to the left when I retract the ram," says Freed. "When it's at the halfway point, it steers straight."

He installed a safety chain on the ram, as he's learned he can overpower the linkage if he isn't careful. When the ram is needed for splitting, Freed simply removes the linkage and stores it inside the webbing of the H-beam.

Freed hung an operator's seat on the side opposite the boom, mounting a bank of control valves in front. He laid it out like the controls on a backhoe. The one exception is the valve for the hydraulic motor that runs the rear drive. It's mounted under the seat and moves the drive into reverse or forward.

He spent a total of about \$2,000. "A new splitter with a log lift is advertised at \$6,099," he notes.

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Mark Froehlich's self-propelled log splitter can handle any size wood.



Main splitter beam is 22 1/2 ft. long and 18 in. high.

Richard Freid built a down-sized version of Froehlich's splitter using a 9-ft. long, 8 by 8-in. H beam that serves as both the splitter base and the main frame of the splitter.

