

“Robot Mower” Controlled By Add-On Guidance System

If you're tired of mowing big, open areas of lawn, you'll like this "robot mower" idea from Doug Heffron, Kirkville, N.Y.

He modified his Deere 54-in. riding mower to automatically mow a large air strip on his property.

To get started, the riding mower was first used to place wire about an inch deep under the ground, in a back and forth pattern using an implement that Heffron invented.

A 1 1/2-in. dia. pvc pipe mounts on front of the mower and has 2 coil sensors mounted on it, one on each side. A wire runs from the pipe back to one of the mower's front wheels. The coil sensors follow the wire and send information to an electronic box, which in turn operates a motor that's used to control the mower's steering system.

"The electronics read the frequency in the wire, allowing the steering motor to keep the mower on track as the mower works its way back and forth in loops over the area," says Heffron. "It follows the wire to within a quarter inch of the previous run."

The mower has a built-in safety feature on front, so if it hits anything it'll automatically shut down. "If the mower deviates from the wire any more than 2 in., which has never happened, it'll automatically shut down," says Heffron.

A set of metal feelers extends out in front of the mower and causes it to stop if they make physical contact with an object. And a lighted beacon mounted on a 3-ft. high mast at the back of the mower serves as a warning that the mower is working.

Heffron first started working on the idea in the late 1980's. He got some interest from Deere back then but nothing ever panned out. Since then he has upgraded to a new riding mower and perfected the wiring technology.

But he credits the idea for this kind of automatic mower to a man named Gordon Carlson. Back in 1961 a magazine called "Radio-Electronics" published a story on Carlson's 3-wheeled automatic lawn mower. Carlson was only 18 years old at the time but already building electronic circuits.

He says his automatic mower is state-of-the-art. "The robotic mowers on the market now are small and go around in a random fashion that leaves a lot of uncut lawn. My mower doesn't just bounce around the yard until the battery dies. And you can unhook the sensors in minutes and use the tractor for other jobs.

"I engage the blades, get the tractor going at a speed of about 2 1/2 to 3 mph, pop the clutch and slide off the seat as I watch the mower go. While the automatic mower is working, I keep an eye on it as I use my Kubota Z zero turn riding mower to cut nearby areas. I carry a transmitter with me so if I need to I can turn the mower off at any time."

Heffron has applied for a patent on the automatic mower. "I'm not out to make a fortune. I just want to provide information



Riding mower has 2 coil sensors mounted on front, one on each side (above). Sensors follow underground wire and send information to an electronic box, which in turn operates a motor that's used to control mower's steering system.

on my terms that will attract people to my idea," he says.

You can watch videos of the automatic mower in action by going to www.lawnmower.wordpress.com.

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Pretty Pigeon Breed On The Way Back

Pretty, but low maintenance. That's what Kathy and Lew Wescott appreciate about Classic Old Frill pigeons. Photos of them date back to 1890, says Kathy Wescott, secretary/treasurer for the National Classic Old Frill Club.

"I like them for their beauty," she says. "They're very sleek, have a nice stance, and the most adorable little face. They're a nice calm bird that's good for kids."

The breed is often used as "droppers" by breeders who race homing pigeons. They won't fly away from home, so they're released as a homing pigeon returns. The frill returns to the loft right away and the homing pigeon follows.

At shows, frills are divided into 2 general groups, both of which come in a variety of colors.

Satinettes have an all-white body with color on their wings and tails. "Blondinettes are whole-colored birds, which also possess white bars or lacing on the shields and Moon Spots or lacing on the tail. Some varieties have the lacing extending over most of the body," Wescott says.

Features for judging include a pointed peak at the top of the head, a full mane down the back of the head, and a long frill and chest feathers that part down the middle. Because they have tight feathers, males don't need to be trimmed around the vent to fertilize eggs like some breeds. They also have a large enough beak to feed their young, unlike similar breeds such as the Oriental Frill that has a tiny beak.

"They (Classic Old Frill) are not super flighty and can be trained. They are not nervous and bothered by people," Wescott



Classic Old Frill pigeons are becoming more popular after years of declining numbers.

says.

The breed is becoming more popular after years of declining numbers. Now they have their own shows as well as their own category at all-breed shows.

Frills are affordable at \$25 to \$50/bird with offspring from champions selling slightly higher. They require the same care as most pigeon breeds and do well in all climates. Some pigeon owners have heated lofts to

condition pairs for breeding.

With growing interest in careful breeding, Classic Old Frill pigeons continue to improve. Wescott encourages people interested in more information or connecting with breeders to check out the club's website.

Contact: FARM SHOW Followup, National Classic Old Frill Club, www.classicoldfrill.org; kathy.wescott@gmail.com).