Drone Used To Keep Birds Away

Richard Maddever added LED eyes and a siren to this drone, which he uses to keep pigeons out of his rapeseed fields. "Perhaps because it flies high, it looks like a bird of prey. Works better than anything else we've tried," he says.

Richard Maddever's drone keeps pigeons out of his rapeseed fields better than anything else he has tried. Maddever farms with his father Peter in Suffolk, England. He is a licensed helicopter pilot and is also licensed to operate drones commercially.

"I started using it to chase pigeons, and it was brilliant," says Maddever. "The birds got used to everything else we tried. Perhaps because this flies high, it looks like a bird of prey. We added LED eyes and a siren. We also can change the flight pattern height. As a result, they haven't yet gotten used to it."

The pigeon drone is a DJI F550 with 6 rotors and a 12V lithium battery. It came as a kit. Top speed is 40 mph, and it can stay airborne for 15 to 20 min. It is equipped with GPS and autopilot capability. At the time of purchase, it cost about $1,500.

"I can program a route to take it over those areas where the pigeons are 4 or 5 times a day," says Maddever. "It only takes a few minutes to cover a field."

Maddever has received so much attention for his success scaring pigeons away that he has since started a company called East Aviation. He uses multi-rotor drones and other unmanned aerial vehicles for aerial photography, agricultural surveys and mapping. He gathers high definition aerial photos and video of farm fields, as well as wind and storm damage of buildings for insurance purposes. He also offers protection from pigeons.

"We have yet to decide whether to produce drones to sell for that purpose or simply offer the service," says Maddever. "I do know it has met a need for us and overcome the problem we faced with pigeons."

Check out a video of the East Aviation drone at FARMSHOW.COM.

Contact: FARM SHOW Followup, Richard Maddever, Headlands, Cavendish, Sudbury, Suffolk C010 8BL United Kingdom (rhmaddever@yahoo.com; www.eastaviation.co.uk).

Chris Burke converted a 4-seater Polaris Ranger into this 11-ft. tall "Monster Ranger". It rides on big 54-in. off-road tires and can seat up to 6 people.

Home-Built "Monster Ranger"

Chris Burke used to race monster trucks professionally. So when a customer needed a marketing tool for his company, which makes lift kits for the Polaris Ranger utility vehicle, he decided to build something unique. He converted a standard 4-seater Polaris Ranger into an 11-ft. tall "Monster Ranger", with the company logo prominently displayed on both sides of the vehicle.

"I wanted something people would remember," says Burke. "It's a marketing tool that works much like a big billboard sign. It definitely grabs your attention."

The rig can seat up to 6 people and rides on big 54-in. off-road tires with axles off a 2 1/2-ton military cargo truck. The ride is softened by King off-road racing shocks. It's powered by a 540 hp, V-8 engine and automatic transmission out of a 2011 Cadillac Escalade and has 4-wheel hydraulic steering like a real monster truck. It's also fitted with a 24,000-watt stereo and 30 different speakers mounted in various locations throughout the vehicle including the top rack, side boards, cab and fenders. There are even 4 big 12-in. subwoofers located under the seat.

"The speakers draw 700 amps at peak power, which is supplied by one of 2 big dual military batteries each with 5,000 amp hours," says Burke. "The speakers are operated by plugging in an iPad, with the controls mounted on back of the vehicle. We've even set it up at events with a Dj app that uses an iPad to play Itunes songs automatically."

He widened the plastic body by 12 in. and lengthened it by 18 in. Then he bent and formed and welded 1 1/4-in. steel tubing together to build the chassis. The V-8 engine is mounted low on the chassis for a low center of gravity.

He used more steel tubing to build the top rack. "The top rack serves mainly as a grab handle," says Burke. "To enter the vehicle you first step on the front axle, then on the tire, then on the running board, and then grab the rack to pull yourself up into the seat.

"The machine can reach speeds of up to 100 mph, but the fastest I've ever gone is 70 mph. When you're riding that high in the air, though, it feels like you're going 200 mph," says Burke.

He worked on the engine and computerized fuel timing to get more power out of the 375 hp engine. He says the rig normally sounds "like a rowdy pickup." But the operator can hit a button on the dash to operate an electronic servo valve that opens or closes the exhaust, "so we can make it sound like anything from a monster truck to a quiet muffler."

Contact: FARM SHOW Followup, Chris Marshall Burke, 2377 S. 1900 W., West Haven, Utah 84401 (ph 801 791-4616; marshallmotoart@gmail.com; www.marshallmotoart.com).

Made from expanded metal and angle iron, access step mounts to side of undercarriage on Houston's JCB tracked skid loader.

Access Step For JCB Skid Steer

"I recently bought a JCB tracked loader with a side entry instead of a front entry, like most other skid steer loaders," says John Houston, Davidsonville, Md.

"The side-opening door is the main reason I bought the JCB because it was getting more difficult to get into my old T140 Bobcat. However, it was still a pretty tall step up into the cab. So I added a step that mounts on the side of the undercarriage. I made it out of expanded metal and a couple pieces of heavy angle iron. Once it was mounted in place, we painted it yellow to match the skid steer."

Contact: FARM SHOW Followup, John Houston, 3821 Patuxent River Rd., Davidsonville, Md. 21035 (ph 301 370-4890 jhouston@singelec.com).

Aerator's metal tubes slip into poly corner connectors to create a cube that you assemble inside bin.

Cube Aerator For Hopper Bottom Bins

Grain bins have been supersized in recent years, but grain aeration, especially in hopper bottom bins, has not improved. Jeremy Hartsook heard farmers' concerns as he built, sold and installed bin floors across Alberta and Sasketchewan. Then he came up with a new design of his own called the Air Cube.

Hartsook says other systems on the market were heavy and tough to install. With his system, even though the tubes are made of metal, they're short pieces and they're not very heavy. Each of the tubes slips into poly corner connectors to create a cube that's assembled inside a hopper bottom. The tubes, corner connectors and air intake manifold are small enough to fit through the slide on the hopper bottom. Each leg of the Air Cube base is bolted to the side of the hopper bottom to secure the Cube. After the base is secure, the sides and top of the Cube are installed.

Building any of the Cubes is easily done by 2 people in a couple hours, Hartsook says. The parts are light and easy to handle, and the company provides a 5-min. instructional video to walk through all the required steps.

Contact: FARM SHOW Followup, HES Mfg., Eston, Sask., Canada SOL 1A0 (ph 306 962-4372; www.hesmfg.com).