

Powered hang glider

-- you can launch it any where

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If you've ever dreamed, as everyone has, of leaping into the air, circling and soaring like a hawk, then landing on your feet as lightly as thistledown, John Moody's Ultralight Flying Machine (a hang glider with a motor) may be for you.

This is not a personal-use report and I don't ever plan to be in a position to write one. But it is a personal-observation report of one of the most beautiful, graceful, and obviously thrilling fun machines I've ever seen. And I saw it right in my own backyard.

Moody was frustrated by the lack of glider launch sites in the relatively flat area around Milwaukee. So he developed an engine mounting for a 12.5-hp two-stroke engine for his kit-built Icarus hang glider.

With the engine-equipped glider on his back, he runs about the length of a tennis court, takes off, and climbs at 275 feet per minute, cuts the engine at 1000 feet or higher, and glides with total freedom. The engine doesn't handicap glider performance. Restarting the engine in flight lets him climb back up for more gliding, or travel cross-country.

Cool reception

When Moody first called me about doing a story on his flying machine for POPULAR SCIENCE, I was cool. My commercial-aviation background told me that bird-like flight with so little horsepower was unlikely at best. Neither was our editor-in-chief



enthusiastic, partly because Moody talked of landing

and taking off in my backyard, and partly because the history of hang gliders has been marred by imprudent use.

To these objections, Moody countered that most hang-glider accidents occur because of the very factors that his glider eliminates. First, people have been learning to fly gliders by launching themselves from great heights—often to poor landing areas. His rig permits a slow and gentle climb over level ground where you can settle back safely at any time. Second, people are prone to go ahead and fly despite unfavorable winds—after having driven for miles to cliff-top launch sites. Moody has a little engine that makes any level

Fifty feet into takeoff run, glider starts to lift pilot as he runs very fast, up on his toes. Ten feet later, he tucks up his legs—he's airborne.

area a hang-glider launch site, and he can pick the weather for an hour or two of flight nearly anytime, including winter.

We were persuaded. So Moody left his local airport after work one evening, flew about 20 miles, landed and refueled at another airport, and appeared over my house at about 2000 feet—sounding like a chainsaw in orbit and circling with the grace and freedom of an eagle. Minutes later, with engine cut, he flared out over the field across the street and landed lightly.

After adding a dollop of fuel to the 1 1/2-gallon tank on the wing strut, Moody backed



Bird-like, pilot Moody makes a poweron pass over author's yard at a hot 45 mph (photo at left). With engine cut, he comes in low, preparing for a landing (bottom photo). Engine doesn't interfere with glider performance. Twostroke 12.5-hp engine (below), mounted on standard Icarus hang glider that Moody built from a kit, burns about a gallon of fuel per hour of constant use. Flight time would be longer, however, for engine is off for most of flight. (Photo directly below is by Evelyn Lindsley; others are by George Leonard.)



up to the edge of my driveway, tugged the starter rope, and with a heavy starting jog that quickly became a fast tiptoe prancing, left the ground in about .60 feet. His performance had a mystique that somehow outdid all the thundering jets and high-powered aerobatic planes I've seen.

Obviously, there are many technical details—such as weight, balance, thrust-line location, torque correction, and basic aircraft design—that John Moody has spent several years working out. His basic airframe is an Icarus glider, which you can

buy in finished or in kit form. The engine mounting, propeller, and other adaptation details are his own. Together, they make an aircraft that weighs about 90 pounds, burns a gallon of gas an hour, disassembles in minutes.

The combination appears to be extremely stable. And Moody taught himself to fly it: He put in one hour of dual instruction in a conventional airplane to satisfy an FAA regulation, then on his own learned to fly the glider.

Want to know more?

As any pilot or glider enthusiast will recognize, we've omitted a lot of technical details on the premise that readers who are seriously interested will contact John Moody directly. He offers an information package of substantial proportions for \$5, and has a dealership for both glider and engine kit. The price of the package glider and engine is about \$1300 from John Moody, Ultralight Flying Machines of Wisconsin, P.O. Box 21867, Milwaukee, Wis. 53221.

Editor's note: A California company, Catto Aircraft, is also marketing powered hang gliders. Write to Catto Aircraft, Box 1619, Cupertino, Calif. 95014, for information.



Ninety-pound glider can be quickly disassembled for storage or transport. When the glider has an engine, an appropriate launch site is seldom far away.



Mix of 100-octane gasoline and synthetic oil fuels the little engine. Moody reports no plug fouling with this mixture. Special 28-inch-diameter prop has very low pitch.

To land, Moody cuts the engine and stalls out at almost zero speed. Then he touches down lightly and lands with a few trotting steps across the grass.