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Published: June 19, 2011

## From Blimps to Bugs: The Miniaturization of Drone Technnology


Aerial drones are transforming the way America fights and thinks about its wars. While the Cessna-sized Predator drones have become a brand name, military researchers are now at work shrinking these devices to the size of insects and birds. | [Related Article](#)

### Hawk Moth




The model for this fabricated wing is the Hawk moth, a nocturnal moth known for its ability to hover. "We're interested in learning how they fly," one military researcher said, "so we can reverse-engineer their techniques."

### Helicopter



A tiny helicopter, a foot-long hobbyists' model that the researchers bought off the shelf, has been programmed by a computer to fly itself. The researchers are only using the helicopter to test technology that would make it possible for the computer to remotely and reliably fly, say, a drone that looks like a dragonfly out in the open air.

### Quad Rotor




A Quad Rotor, designed from scratch and meant for education and testing, includes a mounted deconstructed web cam and motion sensor and flies with the use of cameras in the room to create a reference point.

## Testing the Drones

A panoramic view of the "microaviary" at the Wright-Patterson Air Force Base in Ohio. The microaviary is an indoor flight laboratory that includes a test chamber where a new, miniaturized class of aerial drones are assessed by cameras and sensors tracking their position and orientation.

Rebecca Sell for The New York Times | [Send Feedback](#)

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