

# Researchers demonstrate mosquito laser in action (w/ Video)

15 February 2010, by Lisa Zyga



An image of a mosquito being zapped by a laser. Credit: Intellectual Ventures.

In the video below, you can watch what happens to a mosquito at the instant it's zapped by a laser, all in slow-motion. Nathan Myhrvold's company, Intellectual Ventures, has been developing the mosquito laser since 2008. Myhrvold recently demonstrated the device at the annual TED conference in Long Beach, Calif.

Myhrvold, a former Microsoft chief technology officer, and other researchers designed the mosquito laser as a method for combating malaria, which is caused by a parasite carried by [mosquitoes](#). One of the team's inventors, astrophysicist Lowell Wood, had helped design the Cold War-era Star Wars laser shields in the 1980s, which partly inspired the mosquito laser concept.

The device originated from a challenge by the Bill and Melinda Gates Foundation seeking a way to reduce the one million deaths caused each year from malaria. As Myhrvold noted at the conference, a child dies of malaria every 43 seconds.

Although early prototypes of the mosquito laser worked, they were too expensive for use in developing countries. In the latest version, the mosquito laser is assembled from commonly available technology. In fact, Myhrvold and his

team found all the components on Ebay, which included parts from printers and projectors, and the zoom lenses from digital cameras. He estimates that the new version could cost as little as \$50 to manufacture, depending on volume.

During his demonstration, Myhrvold released hundreds of mosquitoes into a glass tank. A laser tracked their movements and shot them down one by one, leaving their carcasses on the bottom of the tank. Myhrvold said that the lasers could shoot between 50 and 100 mosquitoes per second.

Besides being fast, the laser is accurate, too; it can distinguish butterflies from mosquitoes, and can also tell the difference between male and female mosquitoes. Only female mosquitoes, whose wings beat at lower frequencies, bite humans.

"You could kill billions of mosquitoes a night and you could do so without harming butterflies," Myhrvold said.

Ultimately, the goal is to use the lasers to create protective fences around homes and clinics, as well as in agricultural fields as a substitute for pesticides.

**More information:** -- [IntellectualVenturesLab.com](http://IntellectualVenturesLab.com)  
-- Scientists Build Anti-Mosquito Laser:  
[www.physorg.com/news156423566.html](http://www.physorg.com/news156423566.html)

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