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AUTOMATED POLLINATION ROBOTS SUPPORT BEES

 TELECOMMUNICATIONS

In Poland, scientists have developed a flying robot that can navigate its own path to pollinate flowers and crops.

Honey bees — wild and domestic — are responsible for an estimated 80 percent of all pollination worldwide. Indeed seventy out of the top 100 human food crops, supplying about 90 percent of the world's nutrition, are pollinated by bees. But bees are in danger. Bee decline is amongst the worst in the US where, according to National Agricultural Statistics, honey bees have declined from about 6 million hives in 1947 to 2.4 million hives in 2008, a figure constituting a 60 percent reduction. We have written about a number of innovations focussing on decline of bee populations, one example being this [downloadable and printable beehive](#) that can be equipped with smart tech to help crowdsource data about the insects living inside. Now, after 4 years in development, scientists at Warsaw University of Technology have created the [B-Droid](#).

The B-Droid is a robotic bee that can fly between flowers to pollinate plants. The robot evolved from a ground-based unit to a tiny quadcopter that can operate autonomously over a predetermined area. The B-Droids uses onboard cameras and an external computer to plan a flight path as they pollinate the crop. The technology was developed by scientists from a host of disciplines — programming, aerodynamics, mechanics, material strength, robotics, automation and electronics — and was designed to help ease the stress on natural bees. Will more sci-fi ideas become a reality?

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