

3D insect scanner reveals inner workings of the wasp | Education/Youth

High-resolution 3D scanning technology is taking entomology into a new era, with researchers able to show with unparalleled clarity the internal and external structures of insects. Using advanced microtomography, Professor [Javier Alba-Tercedor](#) at the University of Grenada shows in his latest research the delicate and complex body of the common European paper wasp.

This 3D model shows in stunning clarity the internal and external structure of *Polistes gallicus* - otherwise known as the common European paper wasp.

Until recently studying organisms this small involved microscopes and dissection.

But zoology Professor [Javier Alba-Tercedor](#) from the [University of Granada](#) has mastered a technique using microtomography, a non-invasive method where a rotating scanner takes [x-ray](#) photographs of an insect.

By combining hundreds of these photographs, a complete picture can be produced in unprecedented detail.

Alba-Tercedor uses a scanner from Belgian company [Bruker microCT](#), formally Skyscan, which costs about a quarter of a million dollars.

Similar to medical CT scanners, these machines are designed for much, much smaller organisms.

The [x-ray](#) scan also gives a unique view of the insect from within - without the need for dissecting, and thus destroying, the specimen.

Professor Alba-Tercedor uploads his videos online, to help others answer some of the insectoid questions that have long bugged scientists.