

### 3D printing to design tactile maps to train the blind

**LOCATION:** Jaén  
**DURATION:** 1'26"

**SUMMARY:** A team from the University of Jaen has developed an information tool to create tactile maps, tools which can train blind people. This software can create specific didactic material, adapted, automatically in barely a few hours. A task that usually is carried out manually and which they spend a few days working on.

#### VTR:

Carlos is a teacher and blind. To teach geography he needs topography maps which he runs his hands over.

**Carlos Valbuena**  
**Teacher**

*"Being blind you only see what you touch. You can only see what your fingers do, so, a blind person can only detect the length and the surface of the map with both fingers."*

These maps are made through an almost artisan process, very costly, superposition and with compressed layers, which involves a few days work. A team from University of Jaen Cartographic Engineering has developed a software which reduces the time and cost of these maps thanks to a 3D printer.

**Francisco Javier Ariza**  
**UJA Cartographic Engineering**  
**Professor**

*"So with a series of sensitive stencils, they can create the cartography they want."*

**Antonio Jiménez**  
**ONCE Eyesight Expert**

*"Up to now we had to create a model, everything manually, now we'll make with the computer and the process will be much shorter."*

The result, in just a few hours, is a model or a three-dimensional shot of the area.

**Carlos Valbuena**  
**Teacher**

*"With this map I can explain to all the children in the class, as well as the blind child and it's useful, I don't have to bring another map for the kids who can see."*

The main use is educative, but the possibility to programme the app so that tactile maps are more versatile opens new doors.

**Francisco Javier Ariza**  
**UJA Cartographic Engineering**  
**Professor**

*"For example we could print a face, in such a way that a blind person could paint a picture of their family in three dimensions."*

The ONCE will make this technology, in due course, available to its associates.

For more information or support please email [info@andalusianstories.com](mailto:info@andalusianstories.com)