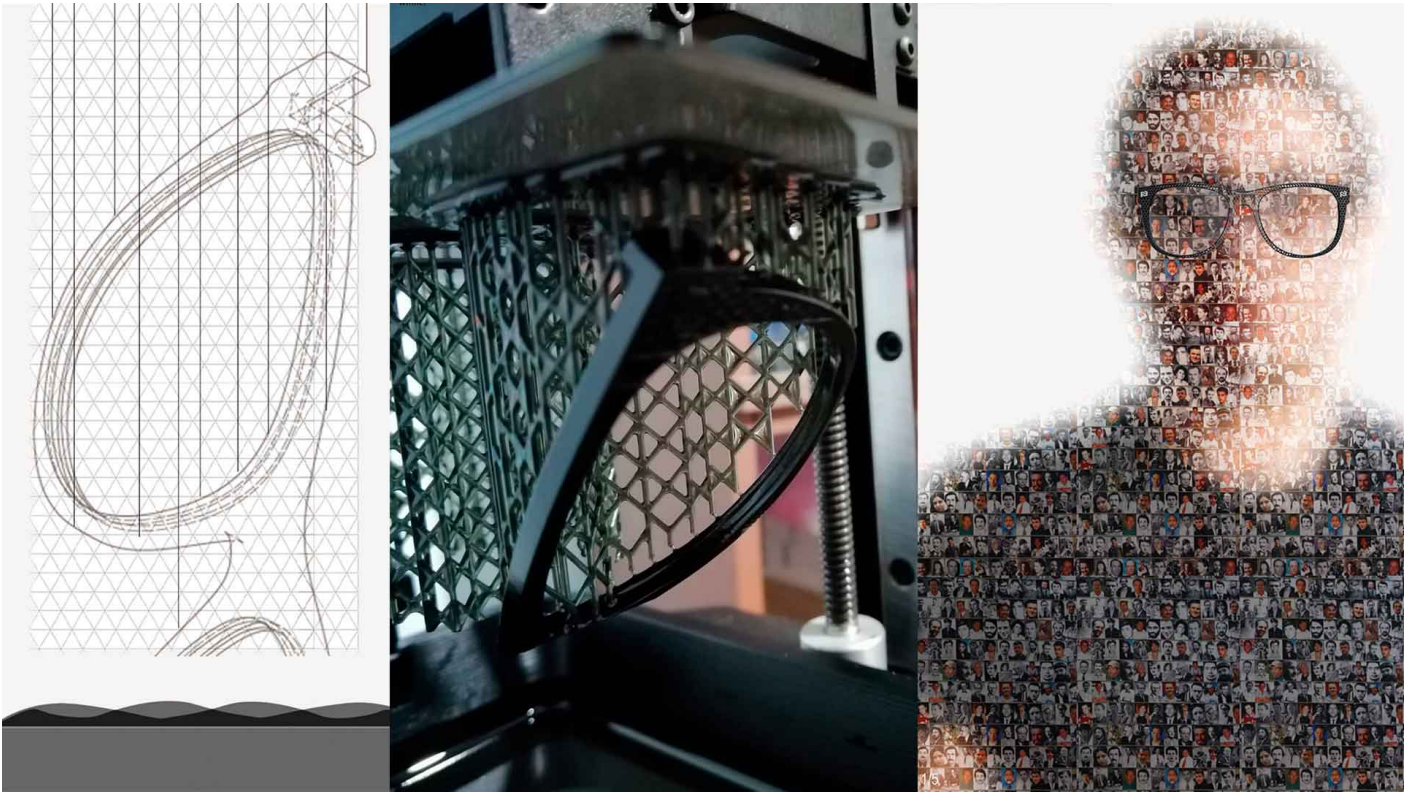


Customized eyeglasses! Tec professor wins global design competition



The *bezier* project, which designs **unique eyeglass frames** for each type of face by using a **facial recognition** program, has won the global [*Red Dot Design Award*](#) competition.

This project was created by **Roberto Alfredo Méndez Benítez**, a **Bachelor of Design** professor at [**Tec de Monterrey**](#) in Toluca.

It won in the **Fashion and Accessories** subcategory of the **Concept Design** category.



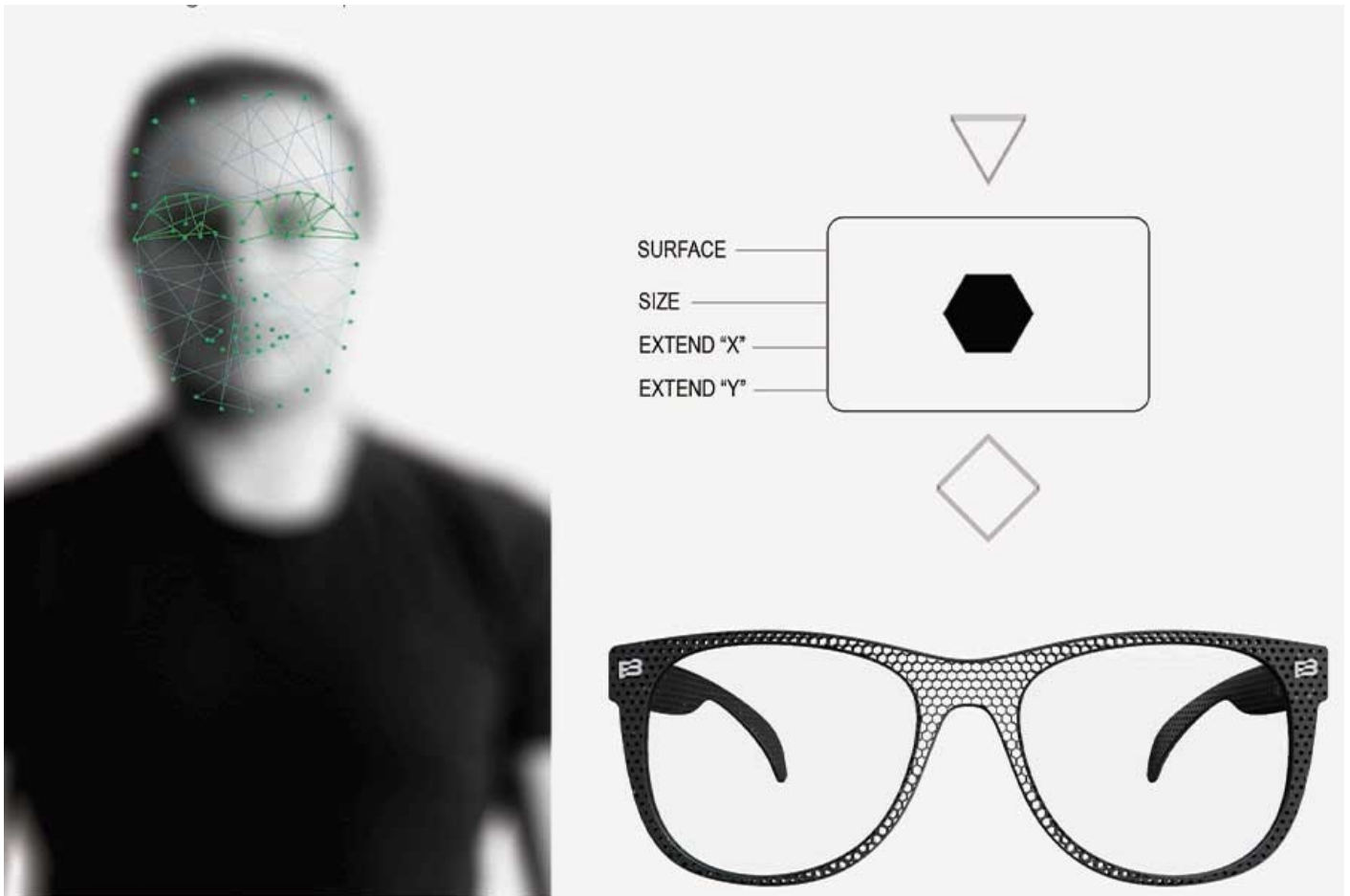
width="900" loading="lazy"> **The project**

*“We understood that a part of the **frame structure** had to be individualized for each person and their specific features; we take **information about a face** using a facial recognition program,”* said Méndez in an interview for CONECTA.

“We take key reference points, and create an algorithm that adapts the positioning, which then automates the modeling. As a result, a base frame can be adjusted to those specific coordinates, creating a unique frame that matches someone’s features,” he explained.

The project is called **bezier** in honor of the mathematician who developed the (*Bezier*) lines that are used in **3D modeling**, and which are related to **industrial design**.

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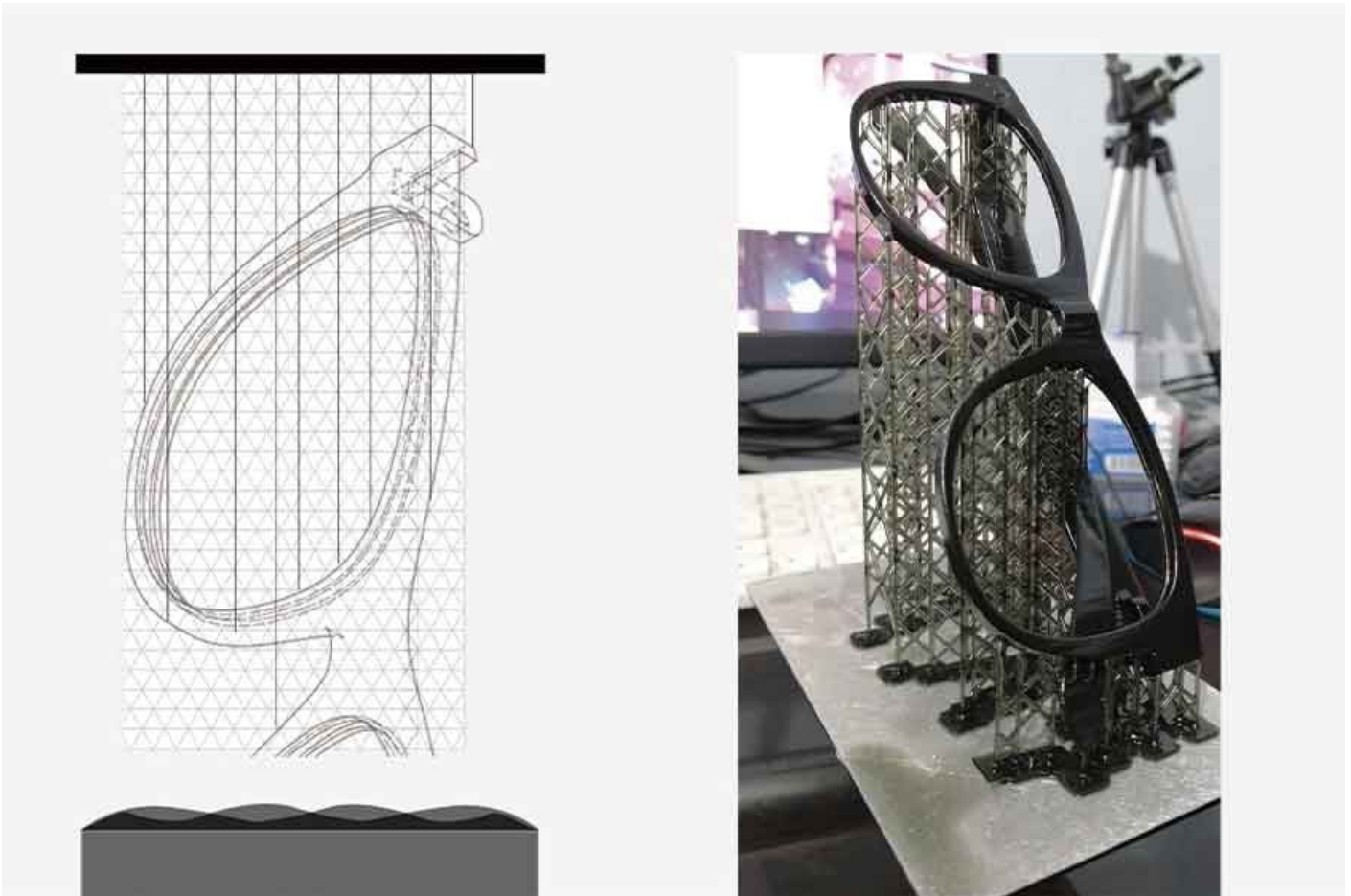
width="900" loading="lazy"> **How did the process of creating and developing *bezier* happen?**

For Alfredo, one of the most important things to do when **creating new things** is to ask himself: **What are doing with our designs? What else can is there?** Those questions led him to research the ***Red Dot Design Award***.

That's when he told his team: *"We're going to design this like we really want to win. The point was to set a goal and start designing for it. Beyond making eyeglasses, our intention is to integrate technology and industrial design,"* he explained.

This project fulfills the complete **design process**: *"We understand how an object is developed (the existing need), how it's built, how design isn't about what you see and what you touch.*

"This enhances the object, as a result of all the technology behind it, which makes it more efficient. In the end, what appears simple is very complex," he said.



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What's next for the project?

Alfredo Méndez said that currently **3D printing** is used to make the frame. Users then go to a professional to get a **prescription** and **mount the lenses in the frame to use it**, but the intention is to go further.

“The idea is to integrate this technology into when you get your prescription. In the end, you’ll have eyeglasses that fit you and work for you immediately,” he said.

“Beyond making eyeglasses, our intention is to integrate technology and industrial design.”

Is there a formula for winning international awards?

Last year, they also participated and won an award. This year, they presented a proposal again and also succeeded.

“This is the fourth time we’ve participated: being recognized worldwide was a watershed moment. It wasn’t immediate; it took us time, but it motivated us to do better and better, until we got there,” he said.

You should recognize that **you never stop learning** from your colleagues, but also **from other people with different professions**. *Bezier* brings computer science and design together.



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It is important *to have different perspectives* so you can face challenges: *“How can you use digital manufacturing methods beyond studying, prototyping, and developing, and use them to make a product for real use?”*, he pointed out.

Finally, he recommended **being honest and self-critical**; you need to understand that **you’re competing both within Mexico and with other countries** and that designers who are *“hungry to give more”* are those who are needed,” he concluded.

Red Dot Award is one of the world’s most important international industrial design competitions and awards prizes in three categories: product design, design concept, and brands and communication.

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