VR to inspire creativity and collaboration between blind and low vision individuals and sighted people.

In 2018, Professor Collura participated in an art tour where she guided members of the sight loss support group to physically interact with two of her sculptures. She realized that there was a gap in communication between what the seeing sculptor had intended, and what the blind and low vision audience experienced. After the art exhibition, Prof. Collura was inspired to increase collaboration between blind and low vision individuals and sighted people through art.
TOGETHER, TACIT

We created gloves that provide different vibration patterns to help a visually impaired person (VIP) to create art without visual guidance. Our virtual reality program allows the VIP to make this art while a sighted person can communicate about what is being made and assist in creating a real art piece. Read below to learn how our project inspires collaboration!

The visually impaired person puts on our left and right glove. An Oculus Quest controller is either held in their hands or strapped to the back of the glove. They step onto a rug to enter the VR boundary.

Virtual Reality tools allow the VIP to begin to create their art. They can add material or carve away pieces of the starting object of their choice - currently a block or a sphere.

Vibration patterns, called haptic feedback, coming from the gloves guide the VIP. The vibrations indicate proximity to their sculpture and the tools being used. The vibrations help them understand the shape of their art.

The sighted person wears the headset to observe, guide the VIP, and discuss the vision for the art piece. This opens up important conversations for full collaboration.

After creating the final piece in the program, the art can be 3D printed or the sighted person can begin to create the piece in real space!