

SMART GLASSES FOR THE BLIND

.lumen

There are 40 million blind people in the world today, but despite all technological advancements, there are only two usable solutions: the white cane, and the guide dog.

.lumen builds smart glasses that empower the blind to live a better life. It uses the latest in autonomous driving technology, scaled down to a headset that can be comfortably worn, to replicate the main features of a guide dog. Processing real-time the information from 6 cameras to understand the world and guide blind individuals through it.

The .lumen glasses:

- > Understand the environment in 3D, where is the ground plane and obstacles underneath or below the ground plane
- > Determine real time what surfaces are safe to walk and which ones are not, like puddles, automotive road, mud, water, etc.
- > Compute safe paths where the blind individual can go and
- > Guide the user using .lumen's patented haptic and auditory feedback mechanisms



Why Isaac ROS?

“What we’ve built is the most advanced technology for blind assistance, scaling down autonomous driving to what people can comfortably wear on the head. It was only possible because of the NVIDIA Jetson platform, and the optimized packages in NVIDIA Isaac ROS. From VSLAM to Stereo Perception, no other platform could have enabled us to do this.”

- Cornel Amariei, CEO & Founder of .lumen