

# Mt. Sinai Case Study



**Mount  
Sinai**



## OVERVIEW

Learn how Mt. Sinai Health System is revolutionizing healthcare, by utilizing the HoloLens 2 and Remote Assist to advance their mission of promoting surgical health to under served locations around the world; providing Specialist knowledge to remote areas for patients in need.

**Client:** The Mount Sinai Health System is an integrated health care system providing exceptional medical care to our local and global communities.

Encompassing the Icahn School of Medicine at Mount Sinai and eight hospital campuses in the New York metropolitan area, as well as a large, regional ambulatory footprint, Mount Sinai is internationally acclaimed for its excellence in research, patient care, and education across a range of specialties.

**Problem:** Mt. Sinai wanted to further their mission of promoting surgical health to places around the world that are under served. To do that, they needed to deploy their doctors and specialists to remote locations effectively so that they could impact the highest number of patients possible.

- Sending specialists abroad to consult with local doctors was costly, time intensive, and complicated by the onset of Covid-19.
- Missed opportunities, where patients in need came in for treatment after the specialist had left.
- Collaborating via standard video and audio communication devices was cumbersome and error prone.

**Solution:** Utilizing the HoloLens 2 combined with Remote Assist, Mount Sinai doctors and specialists were able to directly interact with surgeons remotely, to solve the above problems. The first location Mt. Sinai implemented use of Remote Assist and HoloLens 2 was at the Kyabirwa Surgical Centre in Uganda.

Unlike other real-time video conferencing, when using the HoloLens 2, you are hands free and untethered to a computer. Surgeons wearing the HoloLens 2 can see and respond in real time to any information the Doctor on Remote Assist provides, whether that be medical records, test results, or visual instruction. This helps reduce errors and delays during surgeries. Additionally, doctors at Mt. Sinai can be consulted whenever a patient arrives instead of only during the duration of the doctors' trip. Dr. Marin, after using the HoloLens 2 technology, believes that, "up to 60-75% of surgery done throughout the world can be done like this".

**Impact:** Since the Mt. Sinai Remote Global Surgery program began in August 2020, hundreds of patients have experienced the benefits of medical Specialists shared knowledge using Remote Assist and HoloLens 2 technology. The overall cost to send a specialist to assist in medical processes in underserved countries has dropped while the impact on patients in these countries has increased dramatically.

Due to the success of the project, the doctors involved are already thinking of other use cases for the HoloLens 2 technology within their industry and organization. When asked about how he sees this technologies progression, Dr. Marin said, “I readily see how we will begin to integrate this into our residency and surgical training programs in this institution. We can begin to advance independent surgical skills with our trainees on a more rapid basis. This will form a very important part of the education of the next generation of surgeons.”

**Conclusion:** The HoloLens 2 technology is an innovation that will lead to an increase in both the quality and frequency of global collaboration and problem solving. There are already some exciting examples of how this technology is being put into action, but the true reach of its potential has yet to be seen. As Dr. Marin so adeptly says, “The ability to do something that can be scaled much farther beyond an individual’s technical skills and take it from 1 person to 1000 is one of the most exciting things I’ve experienced in my professional life.”

**Platform:** Azure  
HoloLens 2  
Remote Assist  
Microsoft Teams

**Skills:** Subject Matter Experts in:

- HoloLens 2
- Remote Assist
- Microsoft Teams

Microsoft  
Partner

Mixed  
Reality