AUTOMATELETON
Telepresence System

Problem
Telepresence technology is in active use today. While it’s being utilized mainly in teleconference and communication scenarios, researchers are currently exploring other applications for the technology. As well, the trend toward natural-user interface design, has been focused primarily on the consumer market and on simple tasks, such as turning on a light or playing a song.

Hypothesis
If using this type of system can be as simple to use as a screwdriver or a tape measure, to people working in industries like mining, space exploration or hazardous waste removal, someday it has a realistic chance of being adopted as part of their normal toolkit.

Experiment
I researched, designed and built a system that combines a hand gesture based natural-user interface with a remotely operable robotic avatar. Users are provided with a first-person live video feed from the robotic avatar and are able to control the movement of its arms by simply moving their hands, as if they were directly performing the task themselves.

The user experience becomes about performing a task, rather than controlling a robot.