Onboarding and Interoperability in the Industrial Metaverse
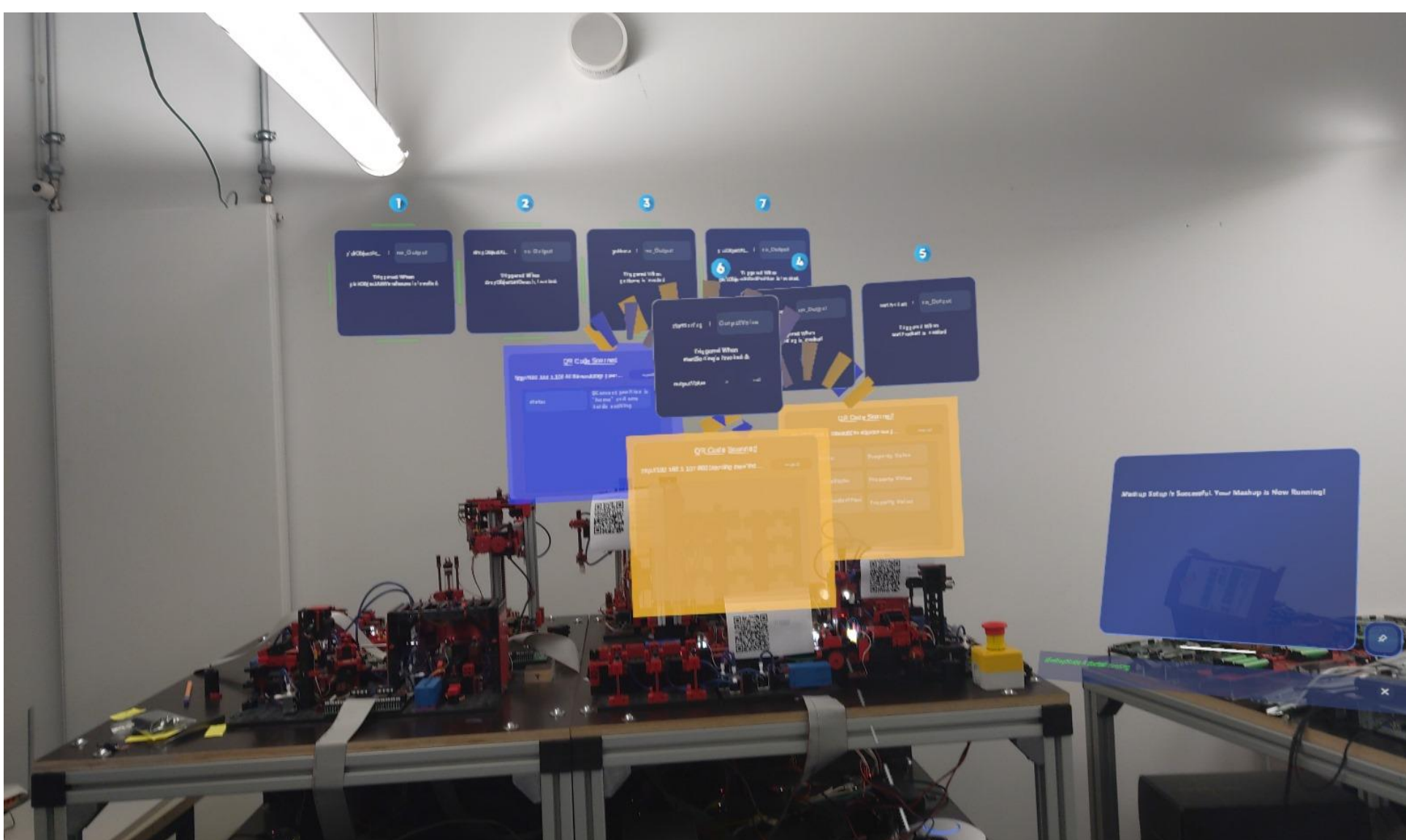
Background and Motivation:

The Web of Things (WoT) provides the cornerstone needed to onboard, connect, and operate devices and systems in the Industrial Metaverse. To showcase this, we built two Mixed-Reality (MR) applications to interact with and visualize WoT devices.
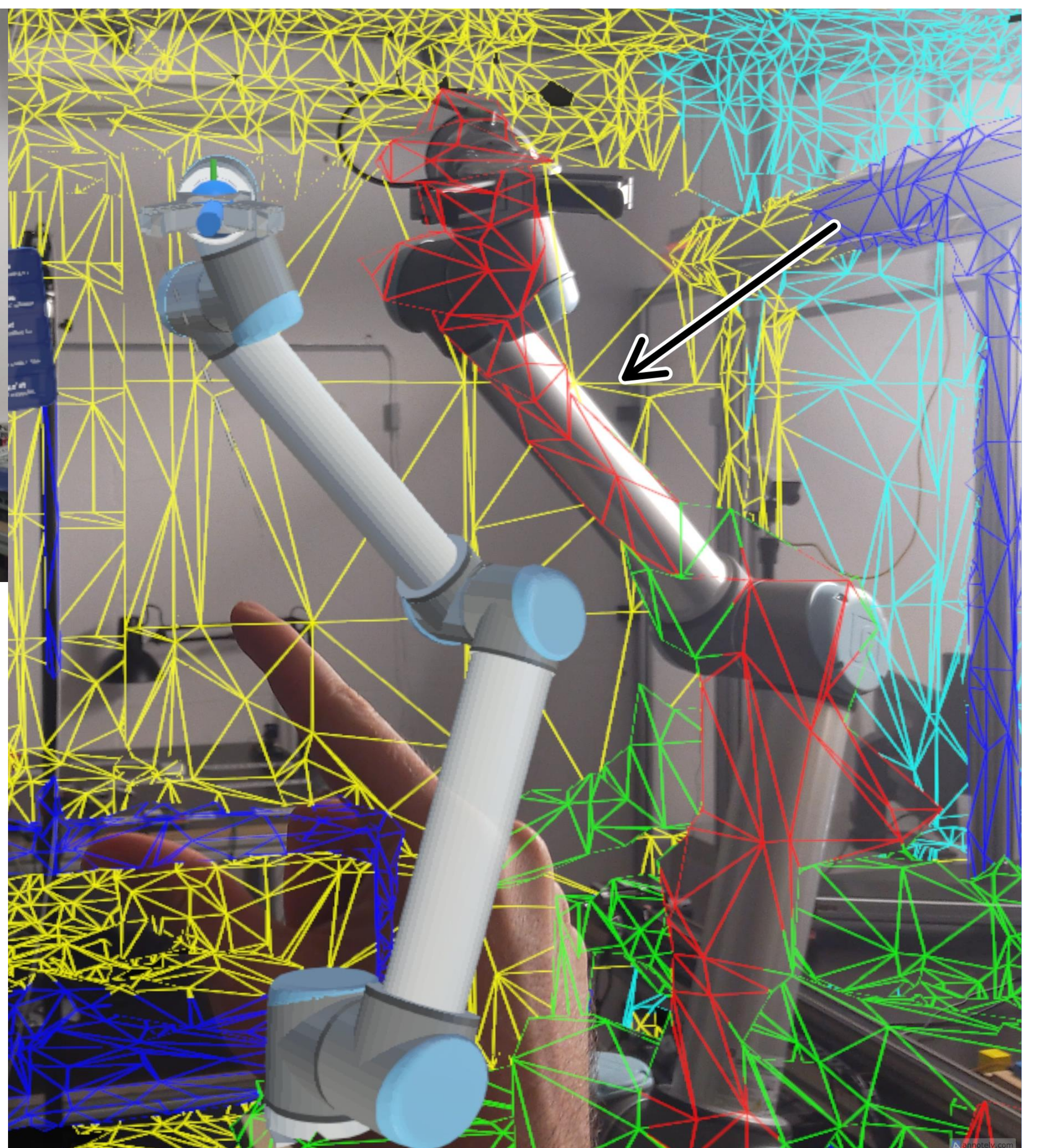
- **HoloWoT**: an application that provides a spatial, virtual interface to any WoT device.
- **RoboLens**: an application that visualizes and controls WoT-enabled robotics using an MR digital twin.

What can be seen:

- HoloWoT:
    - Visualzing device properties using dashboards
    - On-the-fly visual creation and execution of mashups.

- RoboLens:
    - On-the-fly importing of a robot's digital twin.
    - Gesture-based control of any robot using only its TD and URDF
    - Simulation-based verification robot movement based on the current environment

HoloWoT

RoboLens