NoBarriers

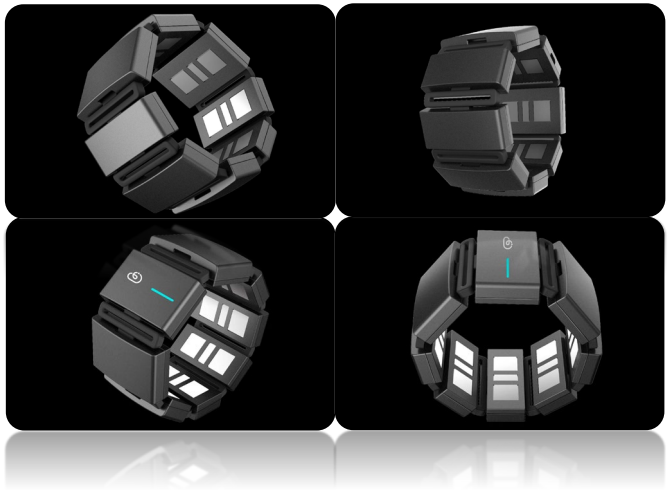
Bringing AI to Biosignals

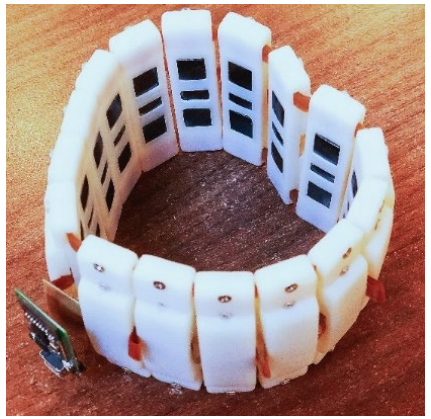
EMG Armbands
EMG Data Collection System
Motion Control System
Virtual Hand Control System

Huimiao Chen

EMG Armbands

Armband designed for Sign Language Translation and Body Language Control





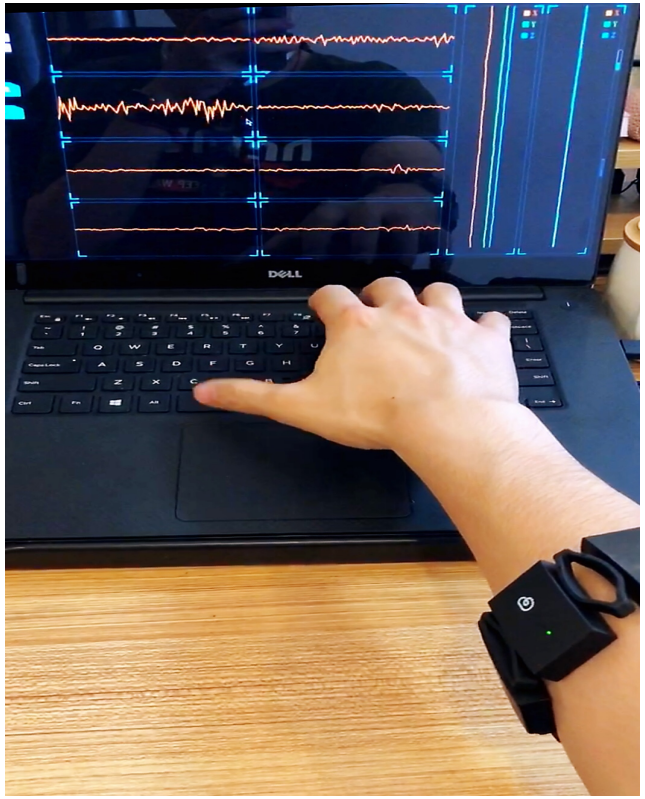
8/16-channel EMG sensors + IMU

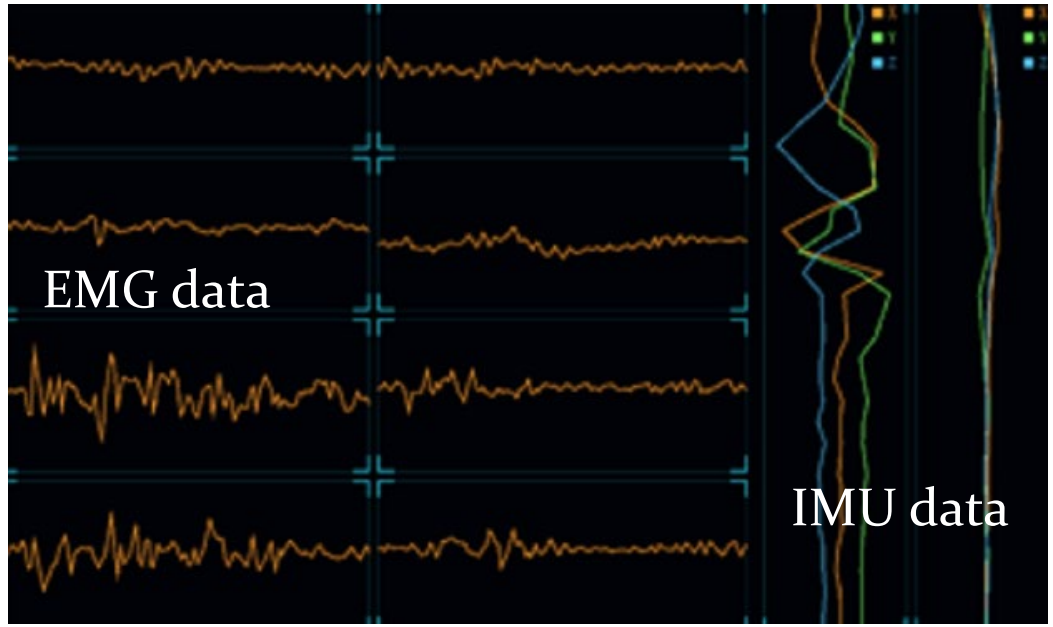
(EMG: electromyography; IMU: inertial measurement unit)
(Data is wirelessly transferred to a cellphone or computer using Bluetooth technology)

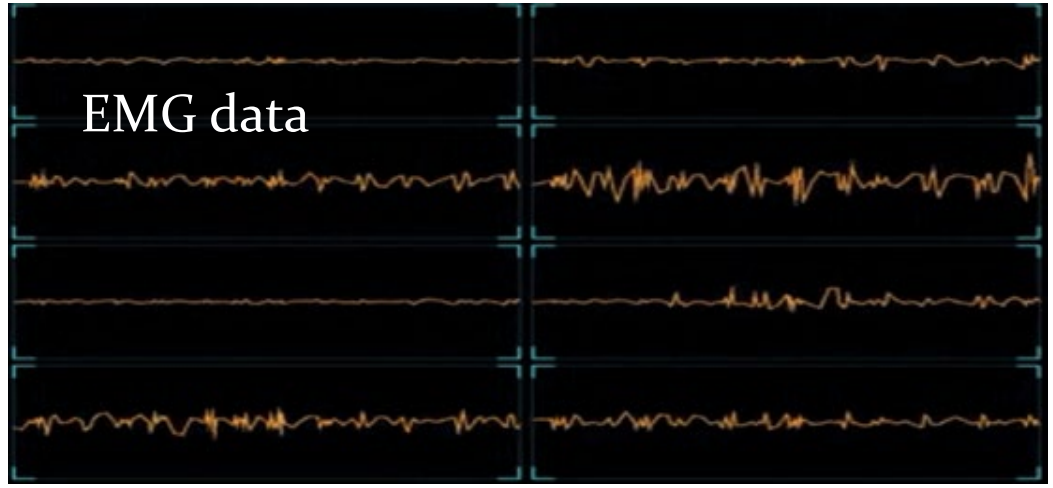
Product Parameters:

- Inner diameter: 6-7 cm;
- Outer diameter: 8-9 cm;
- Max inner diameter: 10 cm.
- Signal frequency band range: 5Hz ~ 400Hz;
- Signal transmission delay: 50 ms.

EMG Data Collection System

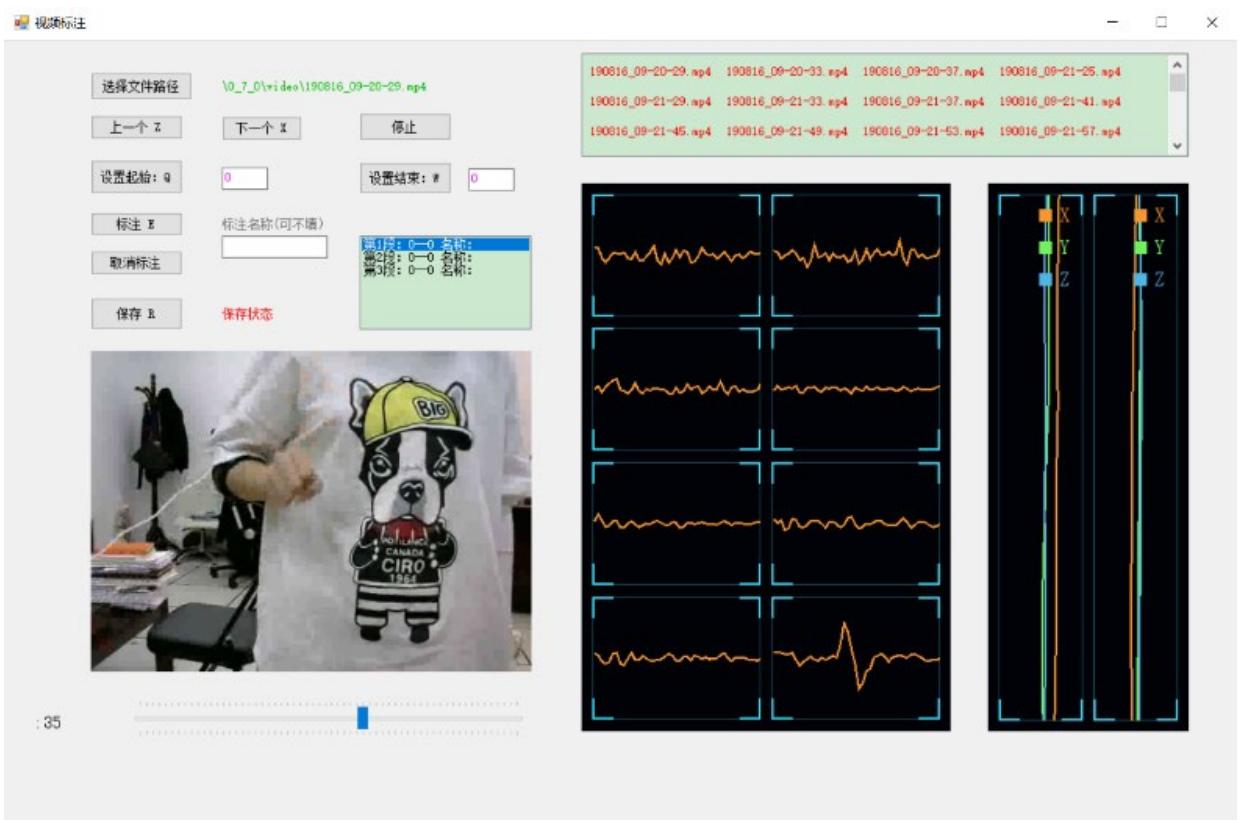






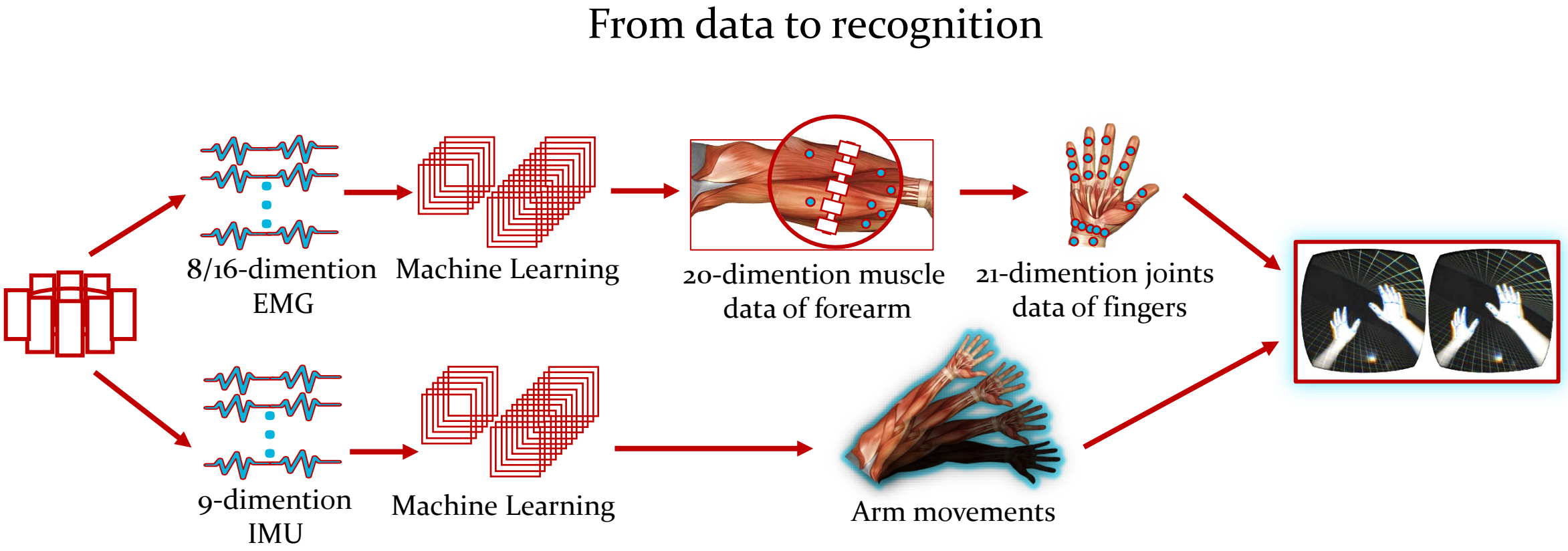
EMG Data Collection System

Collect data with labeling from different people.
Video recording enables motion quality inspection.

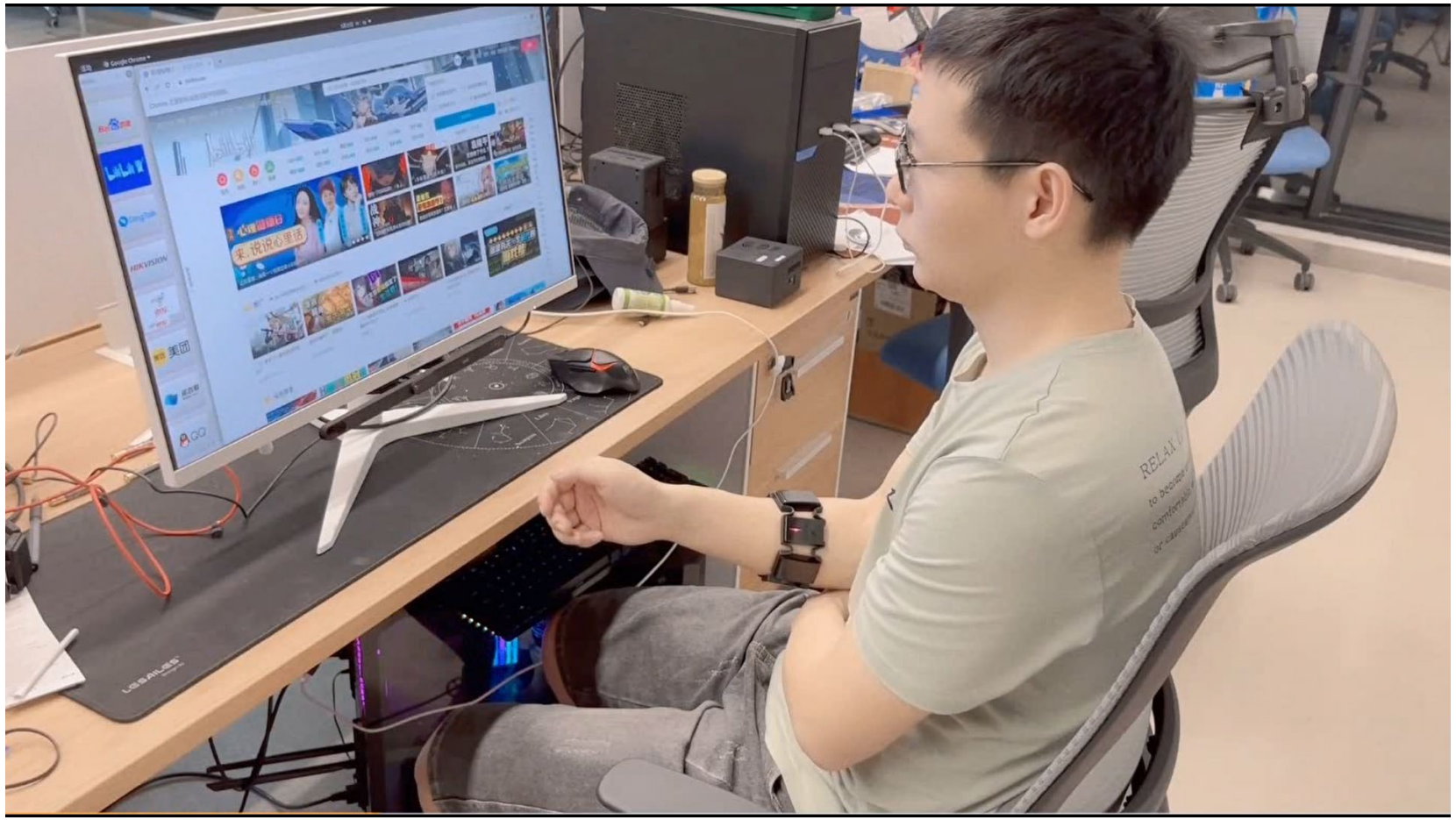


Millions of data pieces were collected and a large bioelectrical signal database was built.

Motion Control System

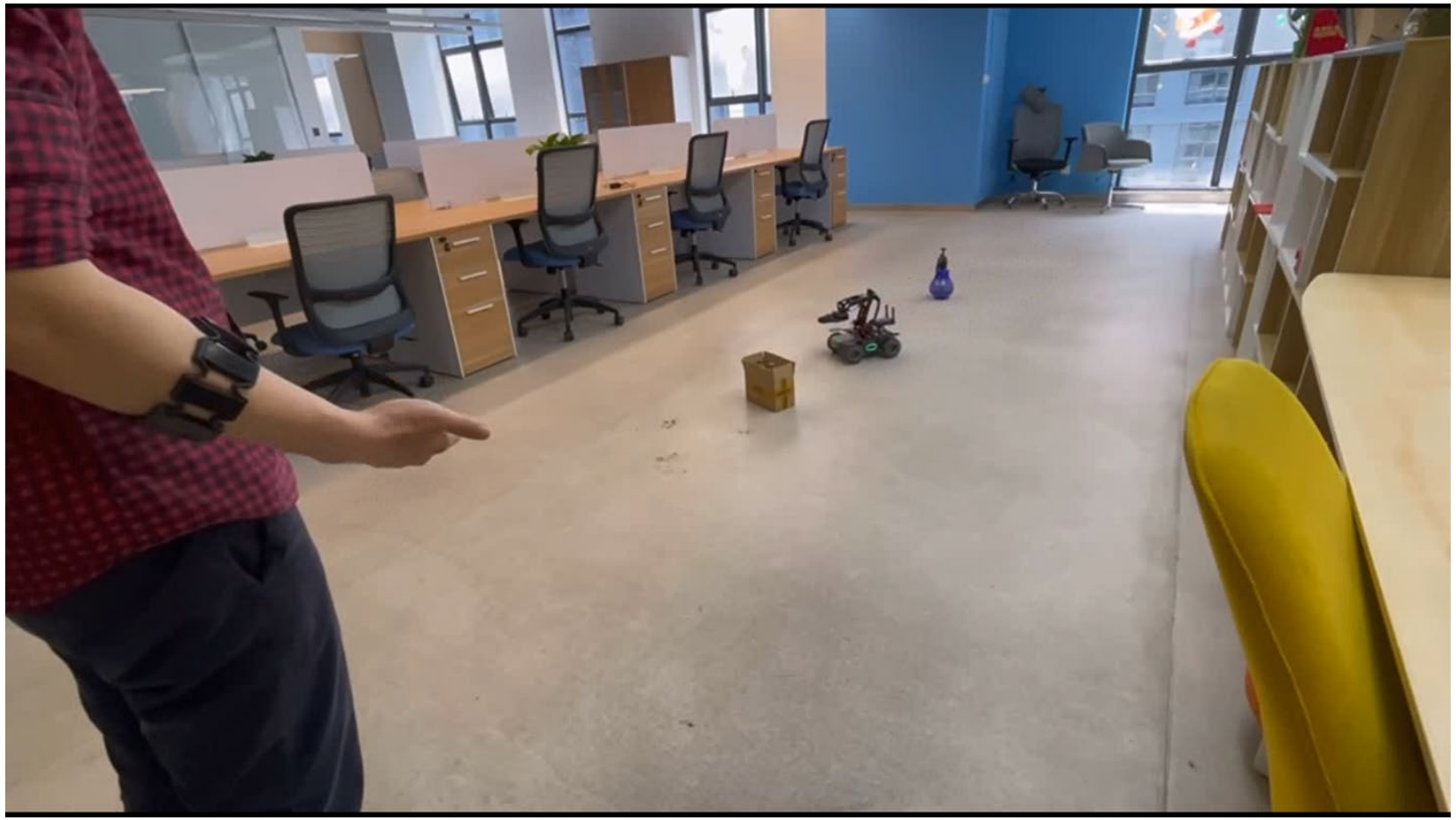


Motion Control System



Control the computer

Motion Control System



Control the small vehicle

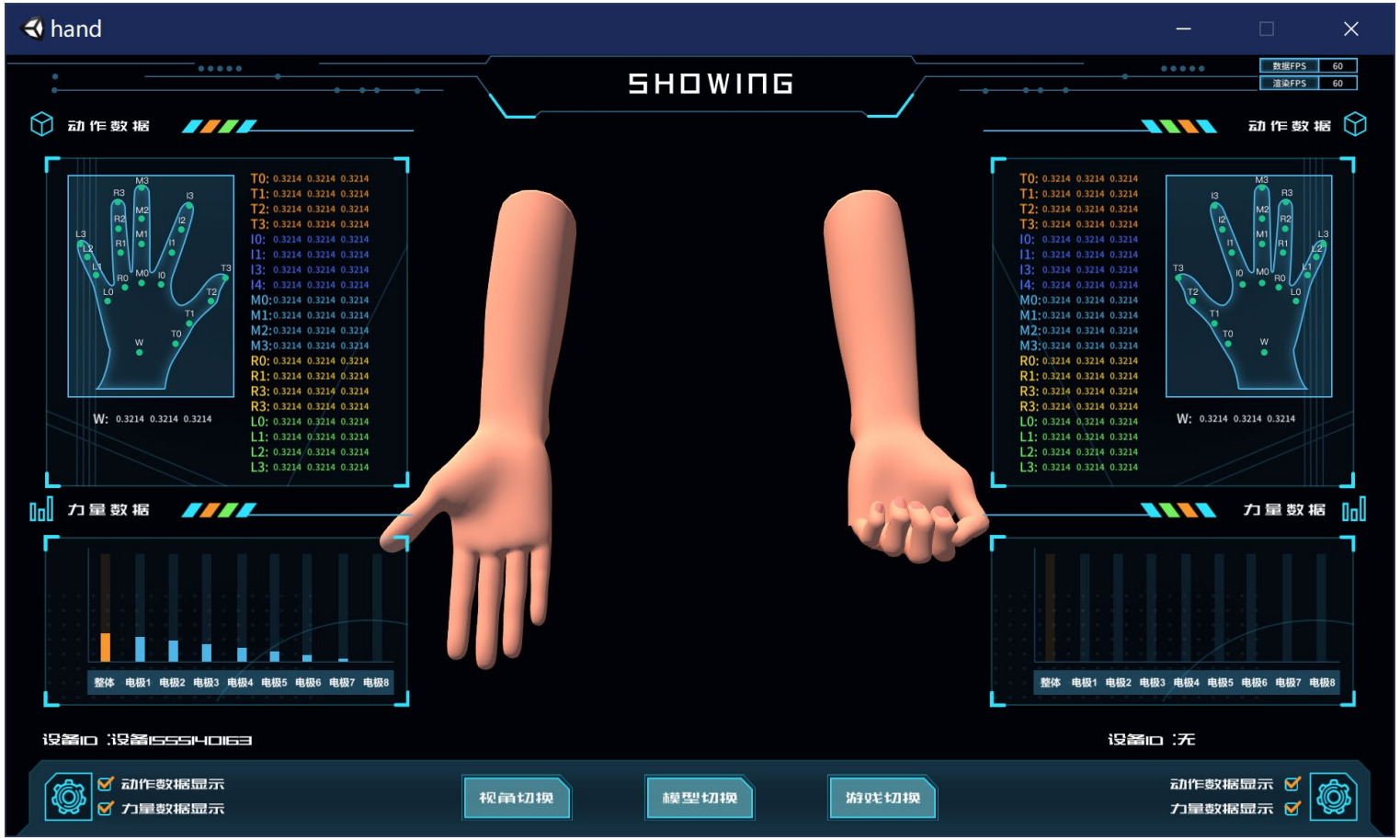
Motion Control System

Control the drone

Motion Control System

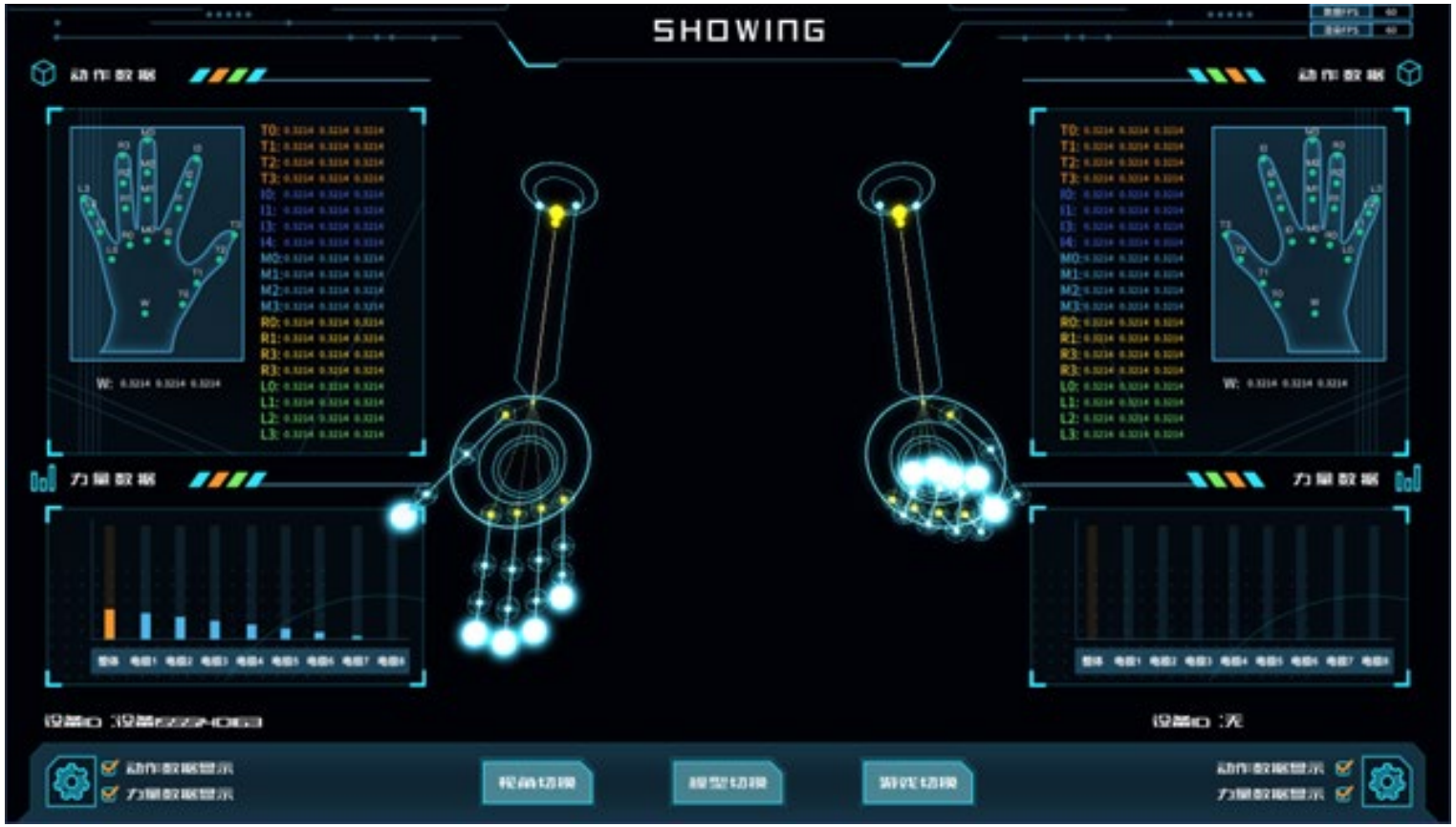
Play games

Virtual Hand Control System



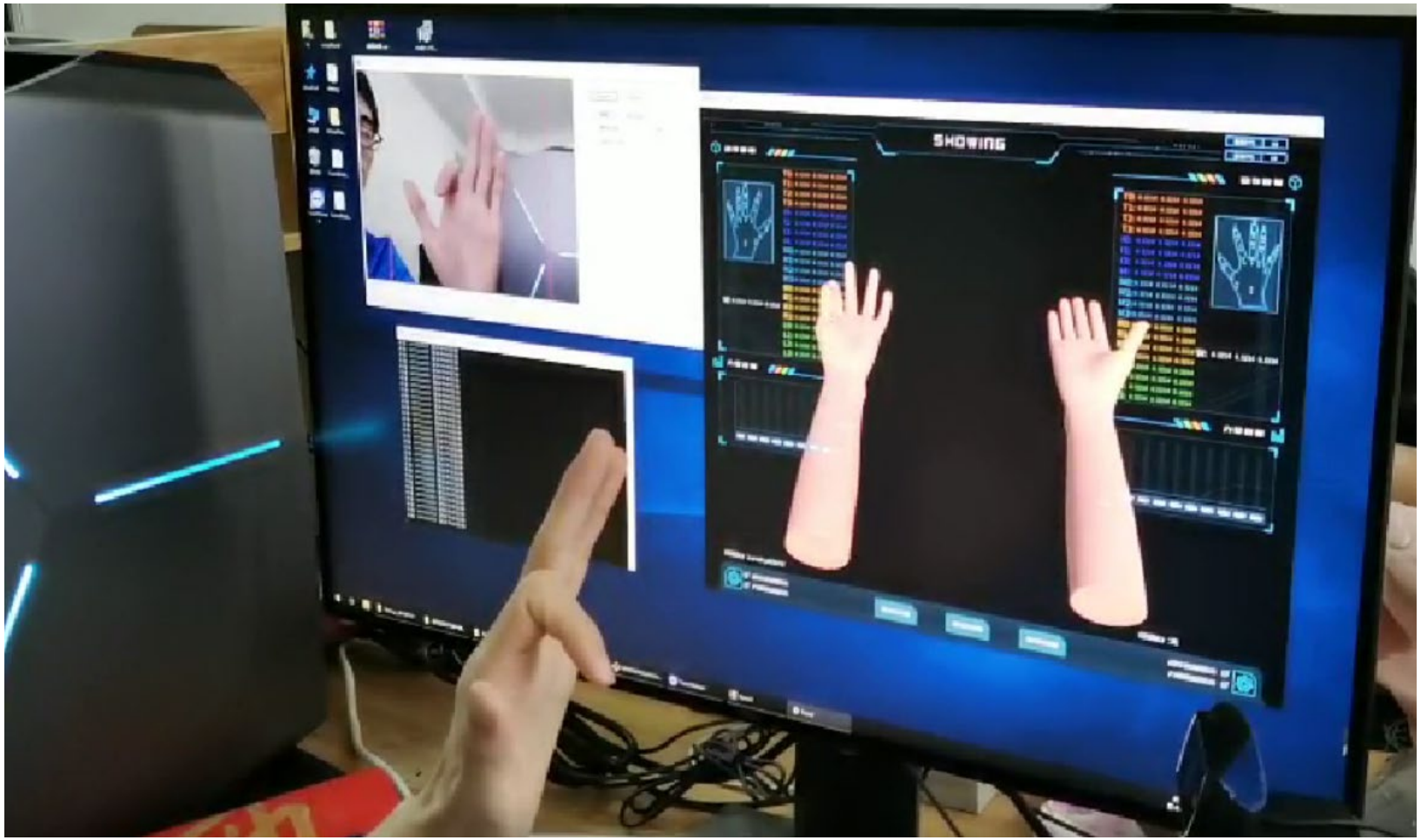
Virtual Hand Control System: synchronize hand movements in the virtual world

Virtual Hand Control System



Virtual Hand Control System: synchronize hand movements in the virtual world

Virtual Hand Control System



Virtual Hand Control System: fine tune the system using computer vision technology.

Virtual Hand Control System

Applications in augmented reality

Virtual Hand Control System

Applications in virtual reality