

Manipulability-Aware Shared Locomanipulation Motion Generation for Teleoperation of Mobile Manipulators

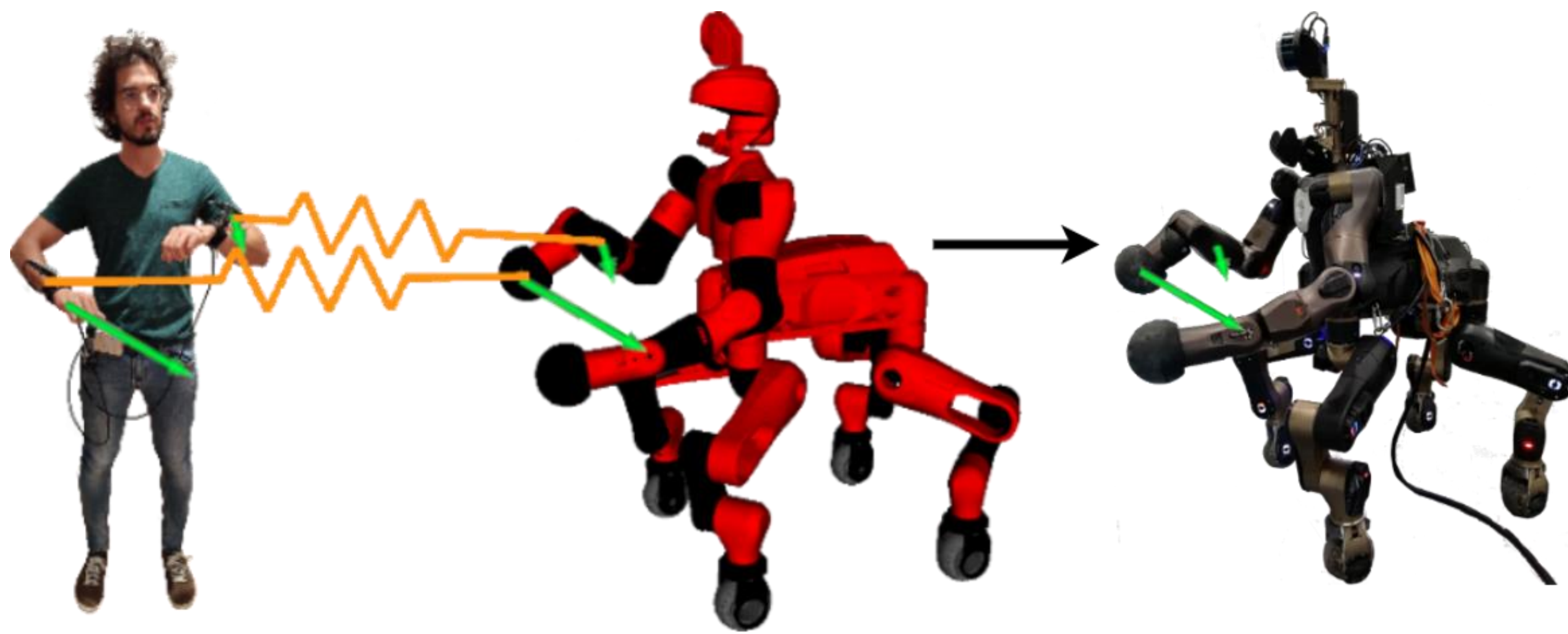
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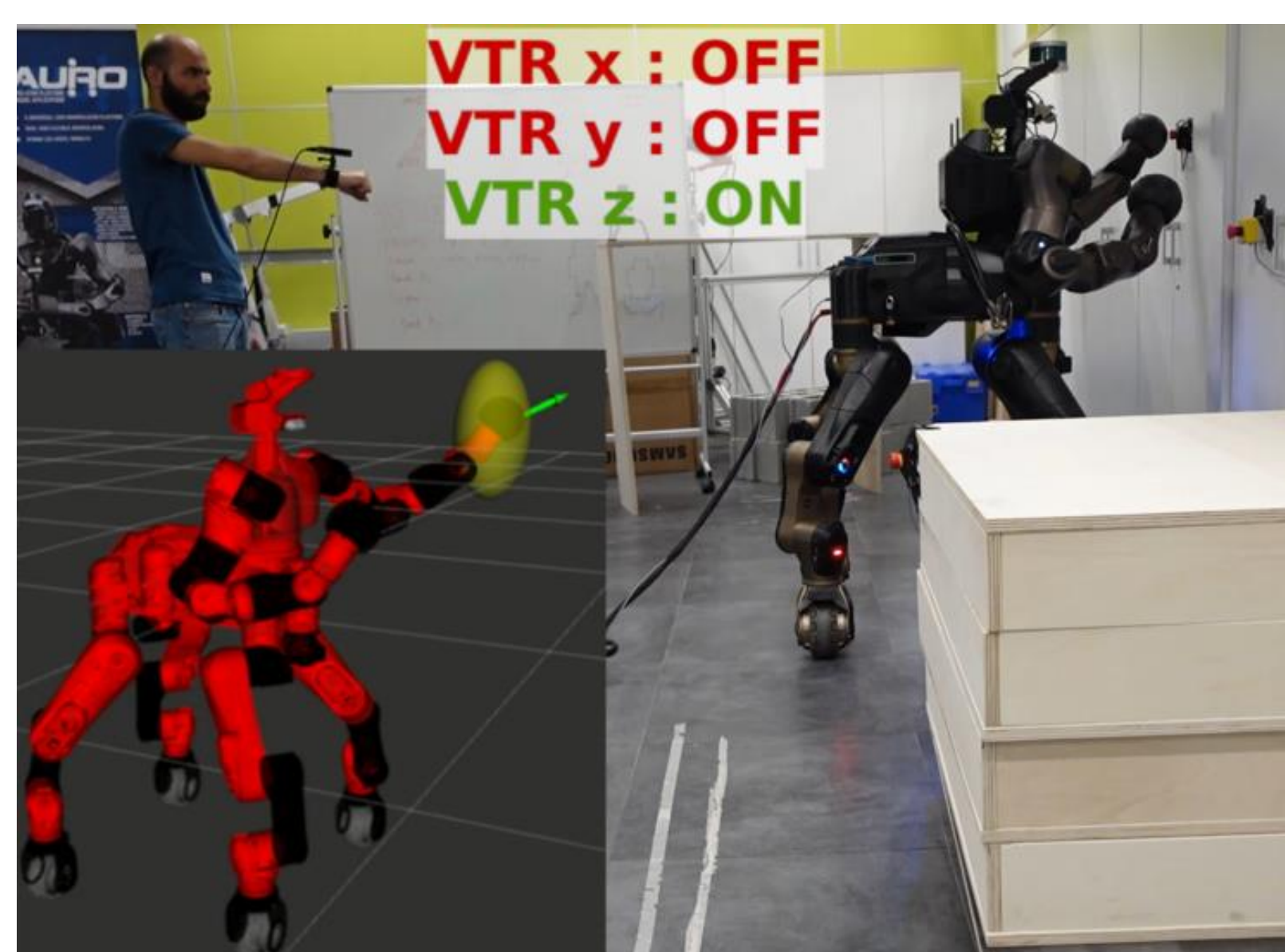
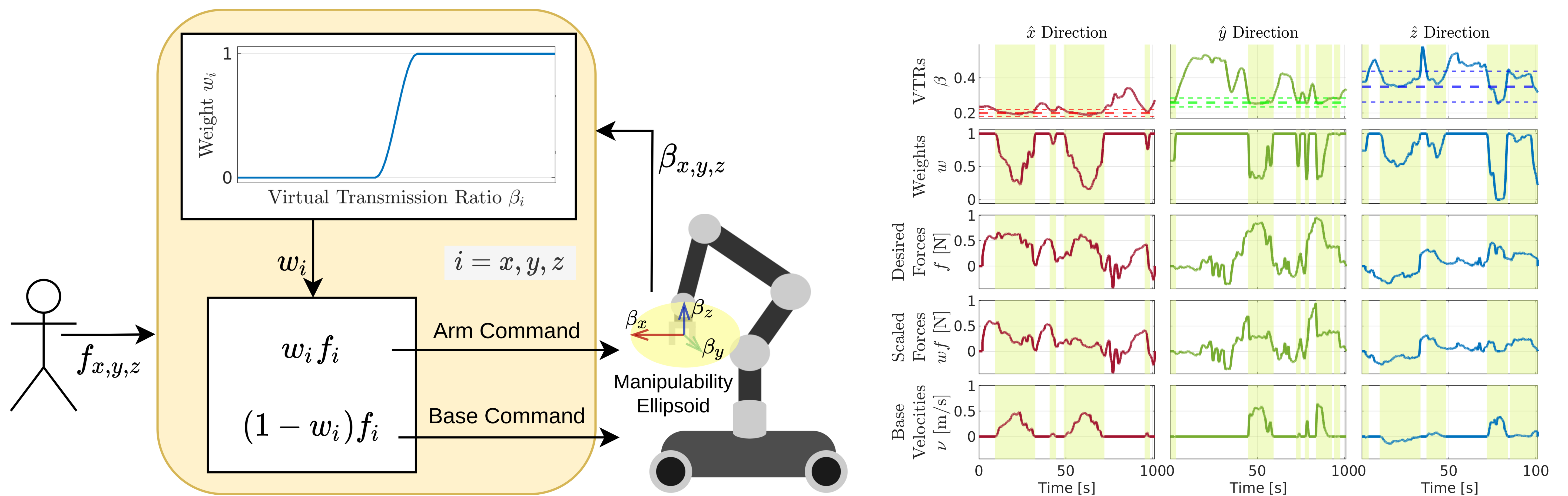
TelePhysicalOperation, a Marionette type interaction interface:

The robot is controlled **at a distance** by exploiting the intuitiveness of a **virtual physical human-robot interaction** through the application of **virtual forces**



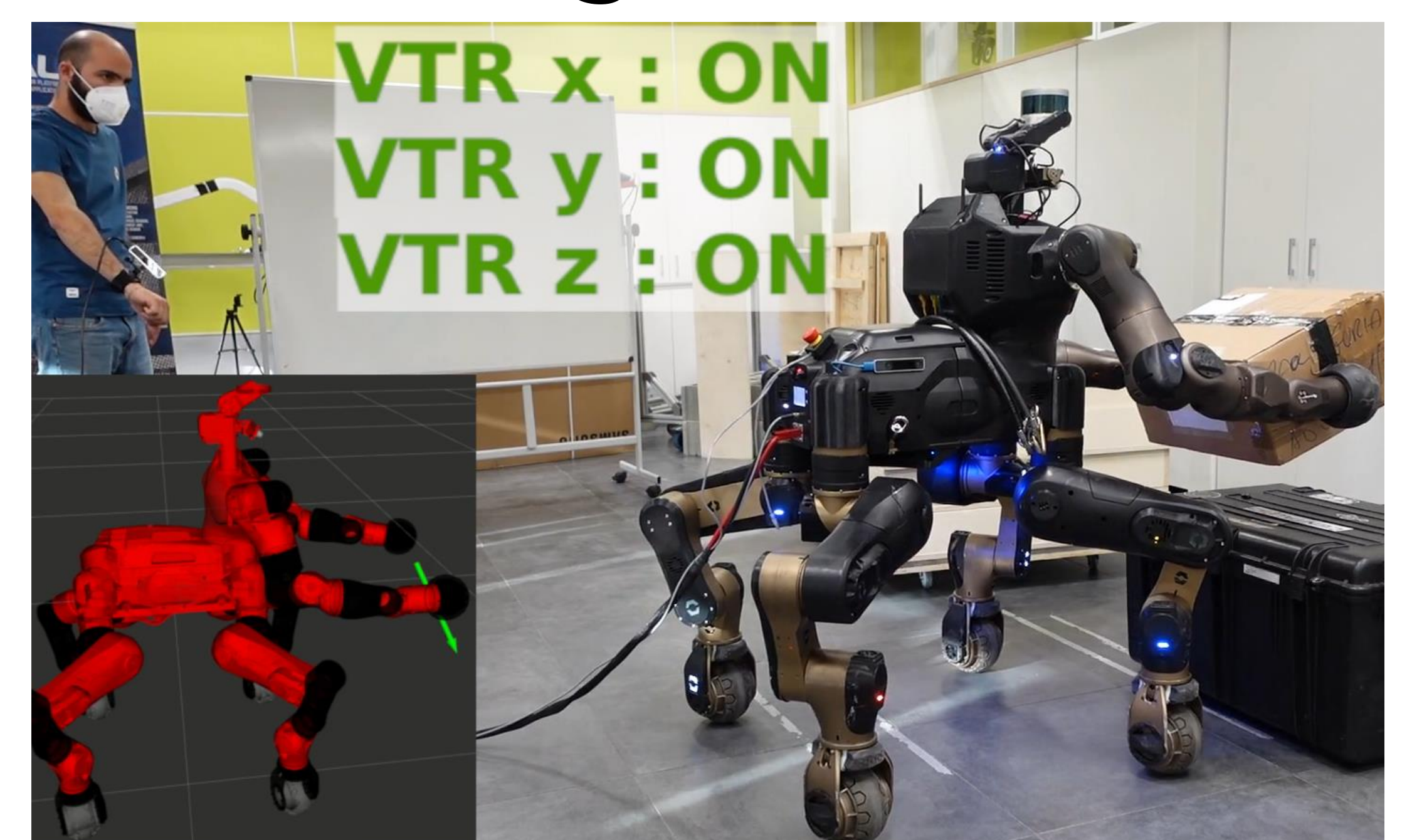
Virtual ropes are defined to let the operator push and pull the selected robot links

Manipulability-Aware Shared Locomanipulation Interface



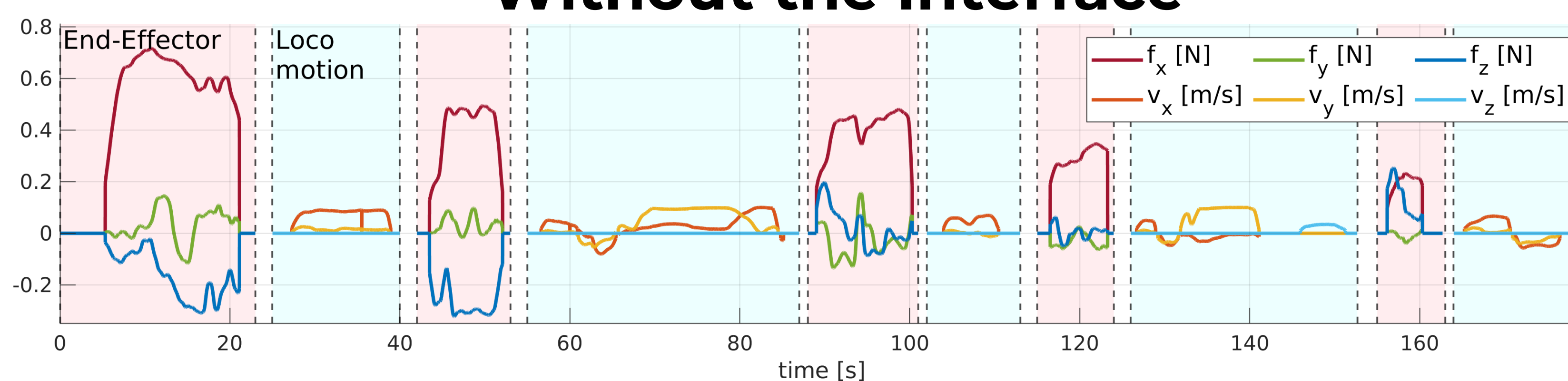
- Arms and mobile base motions are generated based on the arm **VTR**
- No need to switch between arm and mobile base control

Grasping Forces Regulation

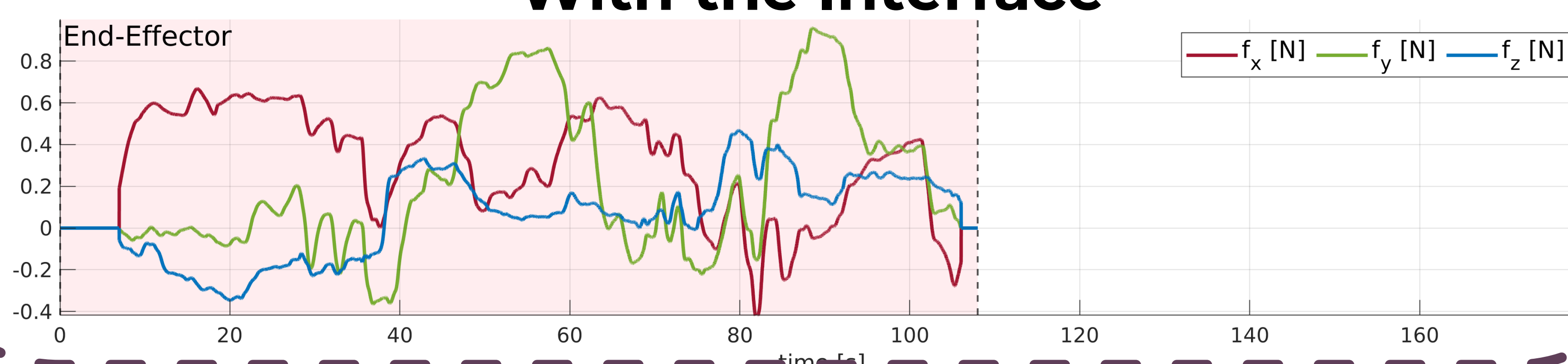


- Automatic regulation** of the grasping forces
- Operator just commands object velocities

Without the Interface



With the Interface



Paper:



Video:

