

HUMAN-TO-ROBOT HANDOVER BENCHMARK

Reference No / Version	RAL-SI-2020-B19-0835 -V1.0
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Adopted Protocol	Human-to-robot handover protocol (RAL-SI-2020-P19-0835 -V1.0)
Scoring	<p>Fill the attached table with the following rules for all the configurations:</p> <ol style="list-style-type: none"> 1. Fill the cup with the instructed amounts of content (empty and 90%) 2. Weight filling before and after the execution of the handover 3. Measure distance between the initial (e.g. center of the table) and the delivery location of the cup 4. Annotate elapsed time for the different phases: human maneuvering, handover, robot maneuvering (e.g. through visual inspection on recorded videos or automatic algorithm) 5. Annotate estimated measures: width at the top of cup, width at the bottom, height, mass (cup + filling), fullness, delivery location, and mass of the delivered content. 6. Annotate human-intention and end-effector with provided pre-recorded data
Details of Setup	See human-to-robot handover protocol (RAL-SI-2020-P19-0835 -V1.0))
Results to Submit	<p>Submission through our website (here)</p> <ul style="list-style-type: none"> • Scoring table (attached to the benchmark and available online) • Videos of all executed configurations. Videos will be treated with strict confidentiality and just with evaluation porpoises. Any compression is allowed but H264 or H265 recommended • Detailed comments on: <ul style="list-style-type: none"> ◦ Hardware setup (robot and sensing) ◦ Artificial illumination