



Advancing the physical intelligence and performance of roBOTs towards human-like bi-manual objects MANipulation



GOAL

To empower bi-manual, mobile robots with **enhanced manipulation** capabilities enabling them to adeptly handle in a **human-like manner**:

- ✓ objects of **diverse sizes, shapes, materials, weights**
- ✓ in **challenging**, human-populated environments.

TECHNOLOGIES

- ✓ New **environment understanding & object/pose** recognition methods.
- ✓ A novel suite of **manipulation primitives** including non-prehensile & bimanual manipulations.
- ✓ Innovative **cognitive mechatronics**, fusing advanced tactile & proximity sensors with the bi-manual mobile manipulator.
- ✓ A new approach for robot cognitive functions, based on **multi-level robot cycles**



USE CASES

Supermarket
shelves' restocking

Baggage handling
in airports

CONSORTIUM
13 partners
7 countries



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