

RObot MANipulation of Deformables through dynamic actions - ROMANDIC

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<https://project-romandic.eu/>



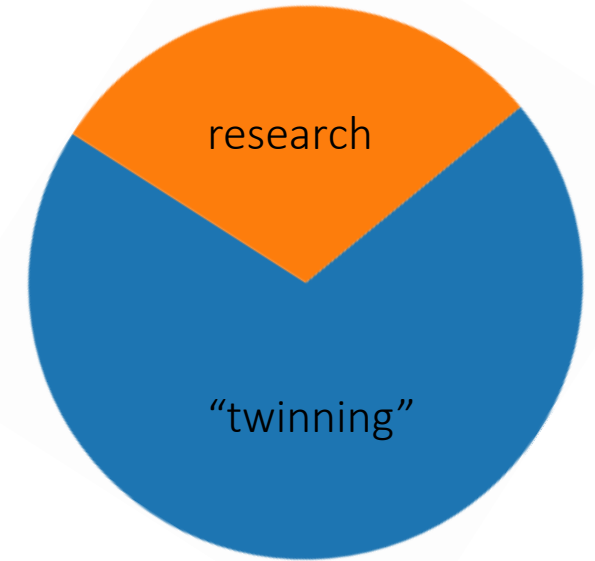
RObot MANipulation of Deformables through dynamic actions - ROMANDIC

- ROMANDIC – HORIZON Twinning project aiming for:
 - Improved excellence capacity and resources in Widening countries
 - Enhanced strategic networking activities
 - Raised research profile and reputation of the coordinating institution from the Widening country
 - Strengthened research management capacities and administrative skills
 - Improved creativity supported by development of new approaches in Research and Innovation collaboration, increased mobility
- These should be achieved through...



ROMANDIC Goals and means (1/2)

- **Significant improvement of the scientific capacity** in the field of dynamic robot handling of textiles:
 - Learning of motion strategies that exploit dynamics of the handled deformable objects ...
 - Integrated task and dynamic motion planner for accurate and efficient computation and execution of symbolic task plan ...
 - Robotics hardware and deployment with lightweight gripper designs leveraging simplicity and versatility ...
- A **network of excellence in the field**, combining individual research efforts and activities of academic and industrial stakeholders on the topic of robot handling of textiles, and spearheading road-mapping efforts



NETWORK OF EXCELLENCE
Deformable Object Manipulation by Robots



ROMANDIC Goals and means (2/2)

- Boosting education and staff training at coordinating institution (JSI)
- Fostering funding search capacity and managerial solvency
- Extending synergies between institutions and ensuring development and continuation of the developed research topic



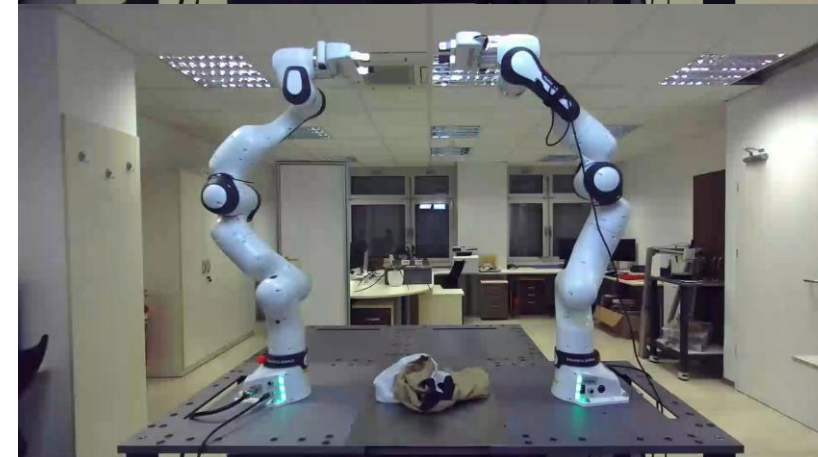
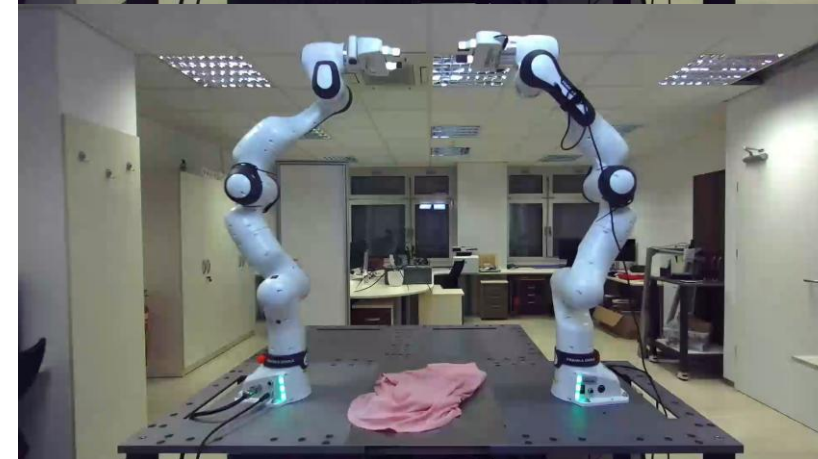
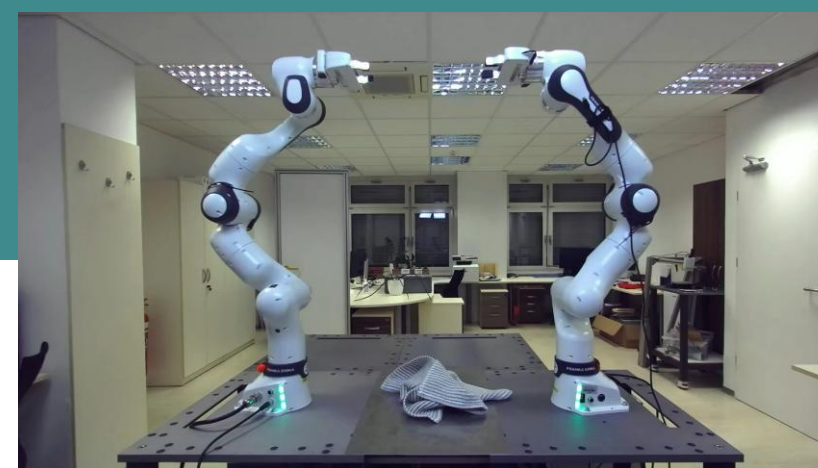
Robot handling of deformables



Autonomous flattening (JSI)



Laundry cleanup demo (KIT)



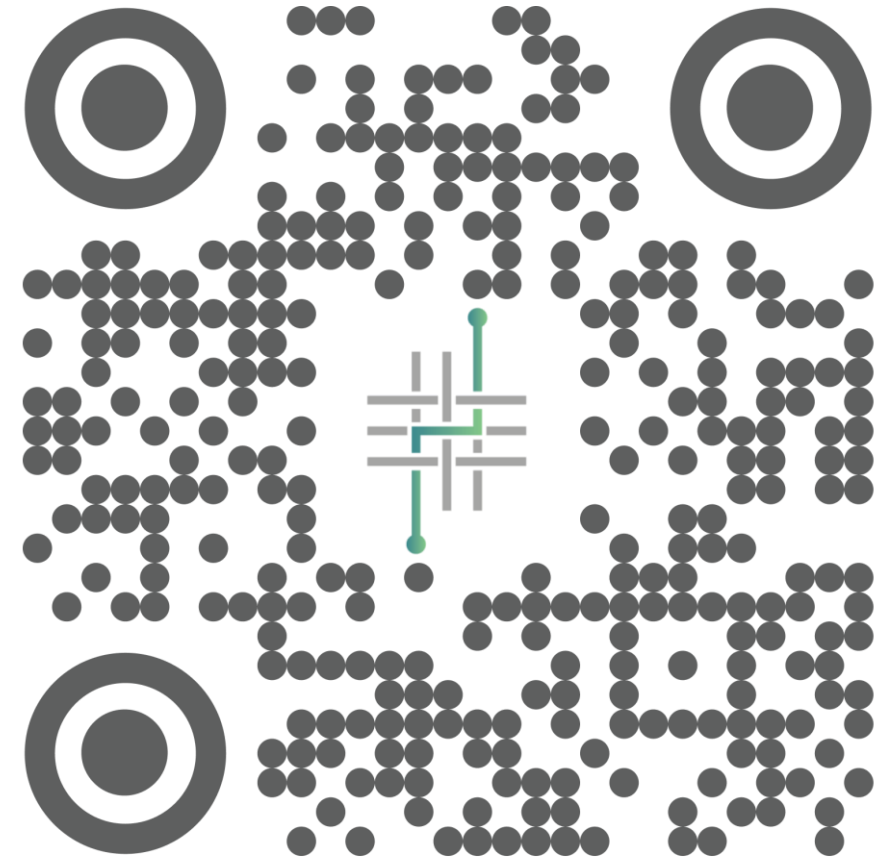
Unfolding in the air
(JSI with FRI-UL)



Deep learning of robot textile handling in simulation (JSI & CSIC)

DON-net goals

1. Connect academia, industry, policymakers, and regulators in a collaborative framework.
2. Amplify research and application efforts.
3. Develop a roadmap for the field's future direction.
4. Formalize networking efforts and fosters sustained collaboration.



Visit **DOM-net.eu**
for more information.



Thank you for your attention!

