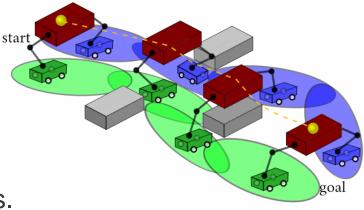
Task-Space Decomposed Motion Planning Framework for Multi-Robot Loco-Manipulation

Xiaoyu Zhang¹, Lei Yan², Tin Lun Lam^{1,3}, Sethu Vijayakumar^{1,2}
¹AIRS, China ²University of Edinburgh, UK ³CUHK(Shenzhen), China

- Propose a dual-resolution motion planning framework for multi-robot simultaneous locomotion and manipulation.
- Compute and decompose obstacle-free convex task spaces for the different subsets of the configuration space.
- Introduce a global planner to explore the lowdimensional decomposed task-space regions.
- Introduce a local planner to compute a path in high-dimensional constrained configuration space.



A path for multi-robot locomanipulation utilizing decomposed task-sapce