

A Graph-Based Search Approach to Planning and Learning

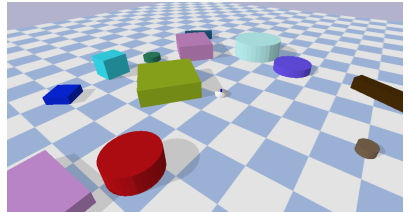
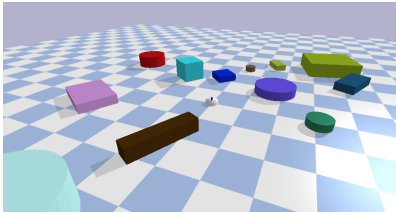
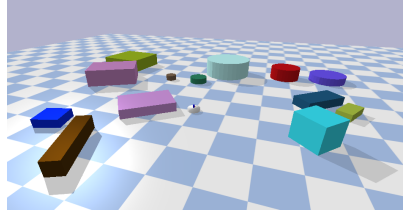
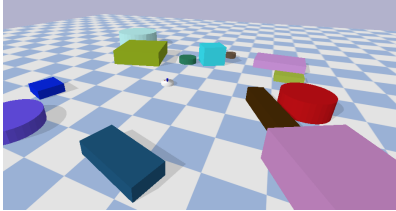
G.S. Groote

Supervisors: C. Pezzato
M. Wisse
C. Smith

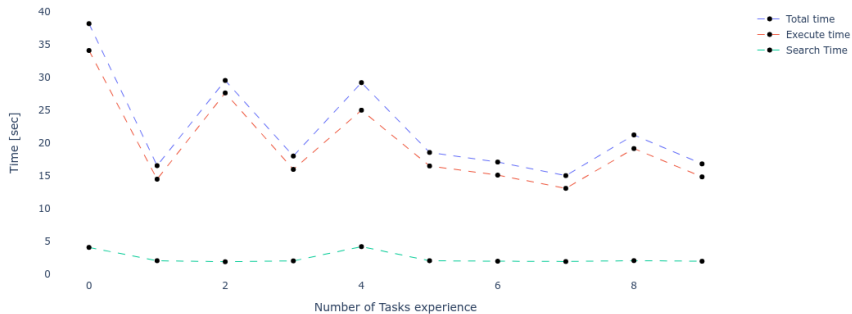
Delft University of Technology, The Netherlands

April 21, 2023

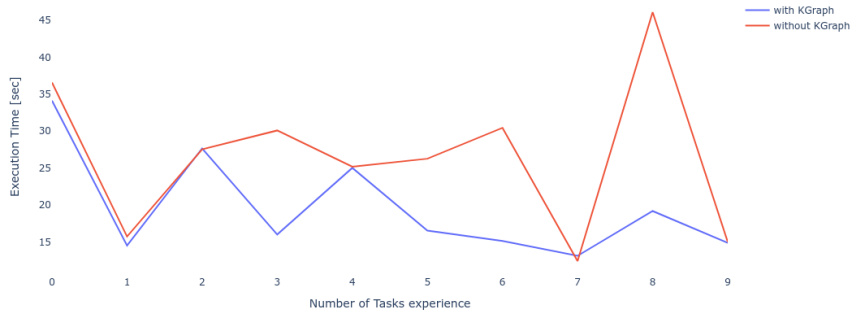
Results: Randomisation Drive Task



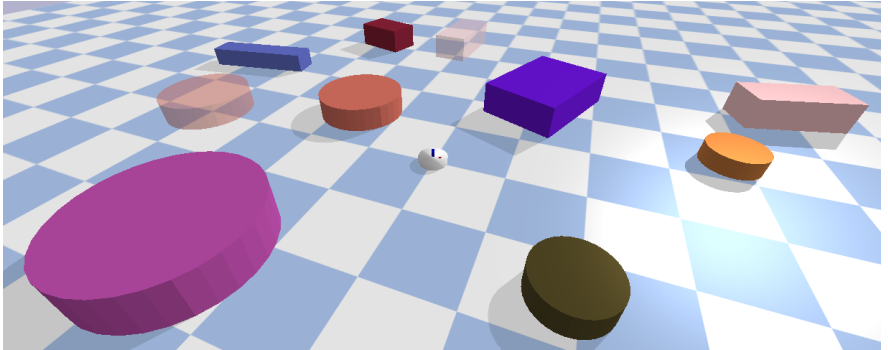
Results: Randomisation Drive Task



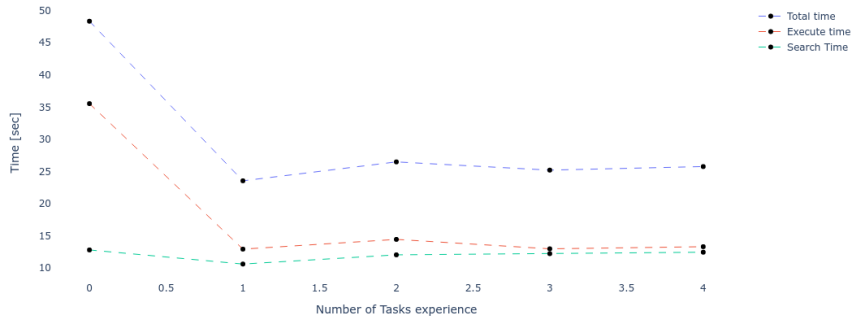
Results: Randomisation Drive Task



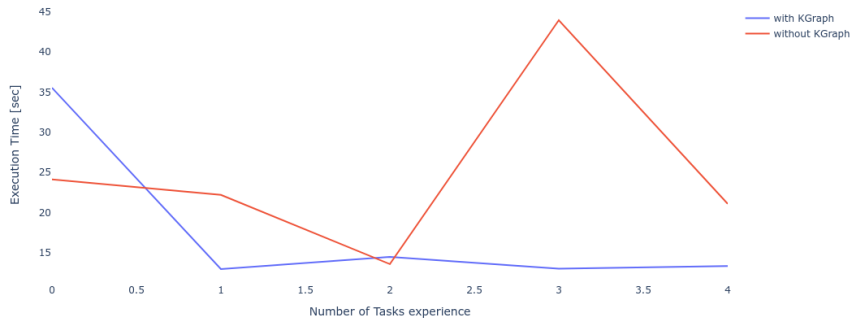
Results: Randomisation Push Task



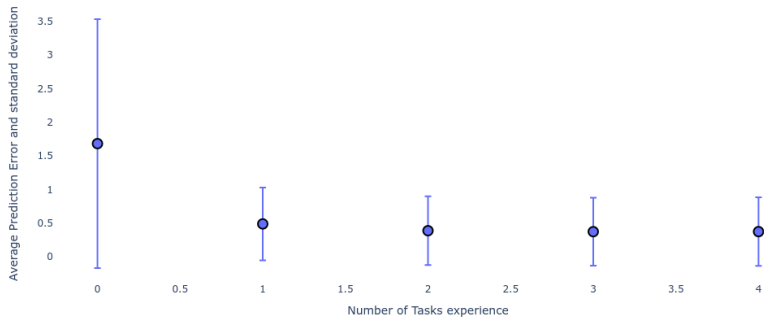
Results: Randomisation Push Task



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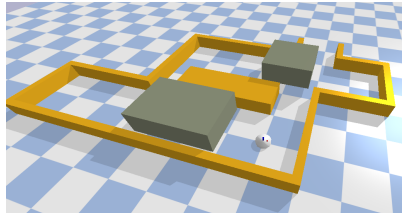
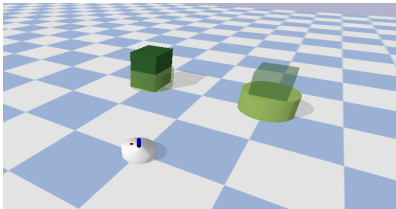
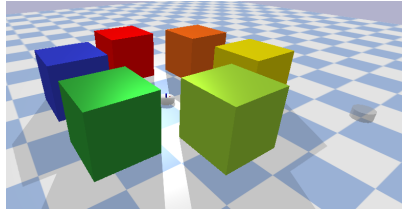
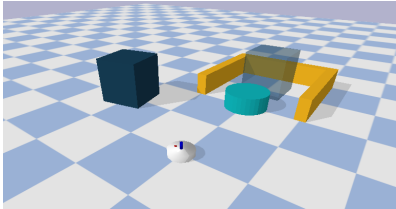
Results: Randomisation Push Task



Results

Author	Learning	NAMO	Object to Target	Manipulation
Ellis et al.	✓	✓	✗	pushing
Sabbagh	✓	✗	✓	grasp-push
Novin et al.				grasp-pull
Scholz et al.	✓	✓	✗	graph-push
				grasp-pull
Vega-Brown et al.	✗	✓	✓	gripping
Wang et al.	✓	✓	✗	pushing
Groote	✗/✓	✓	✓	pushing

More convincing environments



4 Week Planning

Good Scenario

- 50 % Report
- 50 % Presentation

4 Week Planning

Good Scenario

- 50 % Report
- 50 % Presentation

Better Scenario

- 40 % Report
- 40 % Presentation
- 20 % Benchmark Environments