



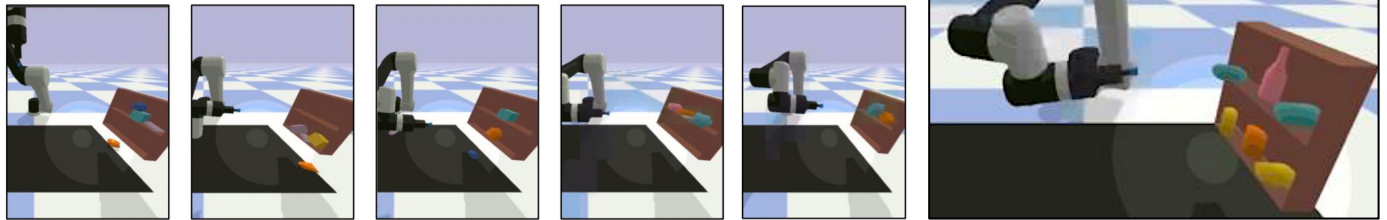
Versatile Grasping for Shelf Placement of FMCG items

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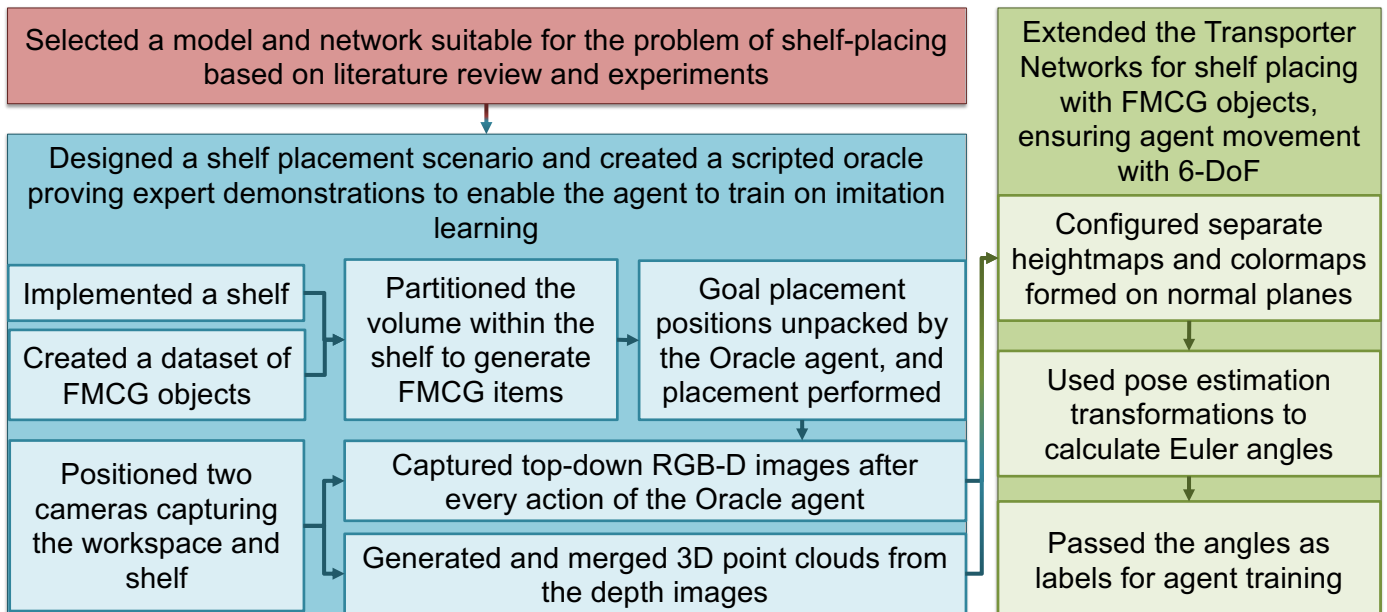
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Objective

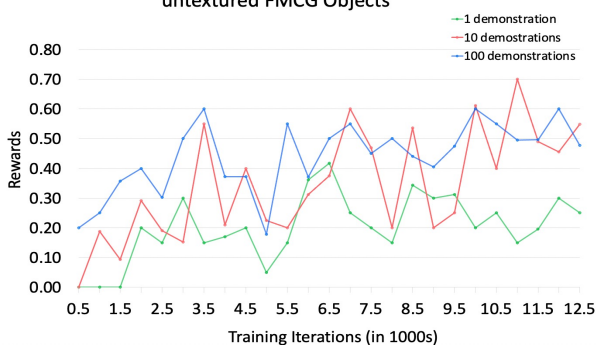
This project extends the novel model structure of Transporter Networks beyond tabletop actions performed on extruded 2-dimensional solid objects utilizing 3 Degrees of Freedom (DoF). These extensions are based on the development of an agent capable of performing shelf-placement of FMCG items with 6-DoF movements on two distinct axis planes.



Pipeline



Testing Performance on 1, 10 and 100 Demonstrations for untextured FMCG Objects



Results

The results obtained confirm the successful extension to 6-DoF, with the agent's performance being similar on untextured FMCG objects and industry-benchmarked YCB objects, achieving **0.7** and **0.65** maximum rewards in respective scenarios. It has been demonstrated that the agent performs significantly well even when textured objects are used, achieving **0.4** maximum rewards.