Modular Benchmarking Framework Documentation

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This is a simplified and condensed documentation meant to be used only for the user-study

Overview

The Grasping Robot Integration & Prototyping (GRIP) framework is a robot-agnostic and standalone software that allows for visual programming and fast prototyping of robotic grasping and manipulation tasks. As any robotic use-case, grasping and manipulation require a multitude of components that need to be coordinated. However, integrating a new component in a new or existing pipeline is very challenging due to the variety of tools, format, language that are used in the literature. To tackle this problem, we developed a set of new interfaces which aim at easing the integration of external components while being able to use them when programming the robot. GRIP contains a GUI that we developped in order to guide users through all the steps from robot integration to task execution. This GUI comprises two mains parts: robot integration and task design/execution. In this user-study, you are going to be asked to carry out several *typical* grasping/manipulation tasks while using different robots and components.

CHAPTER 2

Tutorials

- Grasping and Manipulation
- State machines

CHAPTER 3

Tasks