DUPLO: A two-armed robot programming language for end-users
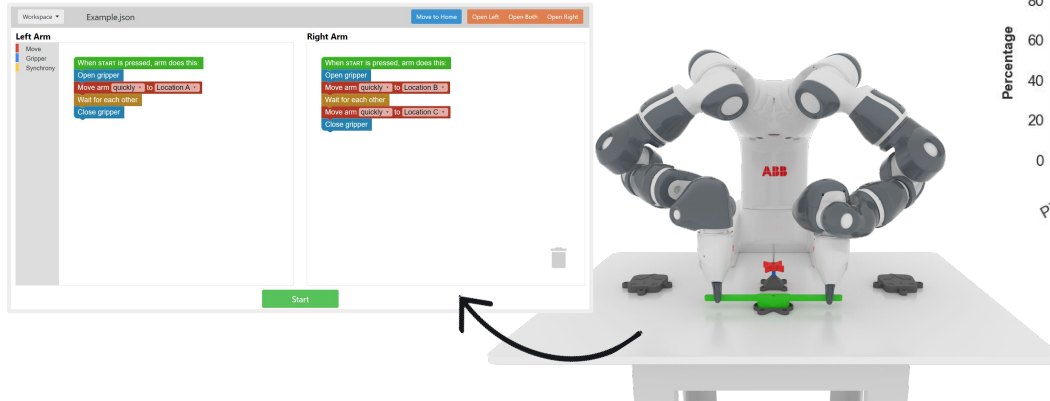
Problem

- The programming languages available for collaborative robots are, in general, too complex for end-users to understand

- Although researchers have been working on tools to mitigate this problem, little attention has been given for two-armed robots

Solution

- In our study we propose Duplo, a block-based programming language designed to cover the difficulties of programming two armed robots

Impact

- 50 participants without experience in programming were invited to a problem-solving experiment

- When compared to another programming alternative, participants shown a higher effectiveness in tasks using our language

- Duplo seems to reduce the number of common mistakes, providing a more intuitive environment to solve problems faster

Visit our project at: https://github.com/vcuse/duplo