



Low cost and versatile cable-driven parallel robot solution for logistics

The objective of project FASTKIT is to develop a experiments aims at providing a low cost and versatile robotic solution for logistics using a unique combination of mobile robots and Cable-Driven Parallel Robot (CDPR). FASTKIT prototype addresses an industrial need for fast picking and kitting operations in existing storage facilities while being simple to install, maintaining existing infrastructures and spanning large areas.

Industrial context

In the last 5 years, automated technical solutions for picking have emerged in the areas of production or logistics. These solutions are based on the coupling of polyarticulated arms and AGVs, however manufacturers have not yet succeeded in developing robust and versatile products (Tech robotics, Exotech ...). In this context, FASTKIT robot presents a new technical innovation that could help to bring more flexibility and versatility with respect to existing solutions.

Innovative features of the project

- Reconfigurability (depending on warehouse/factory) and flexibility (height, payload, speed)
- Lightweight and robust structure
- Low investment cost
- Mobile CDPR

Industrial applications and development

The targeted application for FASTKIT is the logistics industry, including intra-logistics operations within the retail automotive or aeronautics industries, where kitting bins have to be prepared. Indeed for automated kit preparation, specific bin picking algorithms and end effectors have to be developed. In order for the FASTKIT solution to be viable on the market, it must adapt to the requirements of several industries.

Technical and economic impacts

- Reduction in lead time of operations compared to robots based on AGV
- Reduction in investment costs
- Creation of start up

Planning

September 2016

- Project launch

May 2017

- AGV and trailer capable of obtaining desired position
- CDPR with end-effector capable of picking of box

October 2017

- CDPR integrated on mobile platform

February 2018

- End of project

TRL



Applications



Medias

www.fastkit-project.eu

[@fastkitproject](https://twitter.com/fastkitproject)



Contacts

Alexis Girin
R&T Manager, Robotic and Cobotics
alexis.girin@irt-jules-verne.fr