

[Institutional Sign In](#)[Browse](#)[My Settings](#)[Get Help](#)[Subscribe](#)

Advertisement

Need Full-Text

access to IEEE *Xplore* for your organization?

[REQUEST A FREE TRIAL >](#)[Browse Conferences >](#) [Proceedings of ISR 2016: 47st...](#)[< Previous](#) | [Back to Results](#) | [Next >](#)

Fast Edge-Based Detection and Localization of Transport Boxes and Pallets in RGB-D Images for Mobile Robot Bin Picking

[Sign In or Purchase](#)
to View Full Text**163**
Full
Text Views**2**

Author(s)

Dirk Holz ; Sven Behnke

[View All Authors](#)

Related Articles

Edge-based features from omnidirectional images for robot localization

Fast vision-based object segmentation for natural landmark detection on Indoor M...

[View All](#)**Abstract**[Authors](#)[Figures](#)[References](#)[Citations](#)[Keywords](#)[Metrics](#)[Media](#)

Abstract:

Mobile manipulation tasks in shopfloor logistics require robots to grasp objects from various transport containers such as boxes and pallets. In this paper, we present an efficient processing pipeline that detects and localizes boxes and pallets in RGB-D images. Our method is based on edges in both the color image and the depth image and uses a RANSAC approach for reliably localizing the detected containers. Experiments show that the proposed method reliably detects and localizes both container types while guaranteeing low processing times.

Published in: Proceedings of ISR 2016: 47st International Symposium on Robotics**Date of Conference:** 21-22 June 2016**Publisher:** VDE**Date Added to IEEE *Xplore*:** 05 September 2016**Conference Location:** Munich, Germany, Germany**Print ISBN:** 978-3-8007-4231-8

Advertisement

get the latest
IEEE Research
Anytime, anywhere

MyXplore™
Mobile App

GET THE FREE APP

Download on the
App Store

GET IT ON
Google Play

[Authors](#)[References](#)[Keywords](#)[Related Articles](#)

IEEE Account

- » Change Username/Password
- » Update Address

Purchase Details

- » Payment Options
- » Order History
- » View Purchased Documents

Profile Information

- » Communications Preferences
- » Profession and Education
- » Technical Interests

Need Help?

- » **US & Canada:** +1 800 678 4333
- » **Worldwide:** +1 732 981 0060
- » Contact & Support

[| About IEEE Xplore](#) | [Contact Us](#) | [Help](#) | [Accessibility](#) | [Terms of Use](#) | [Nondiscrimination Policy](#) | [Sitemap](#) | [Privacy & Opting Out of Cookies](#)

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2018 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.