One Step Towards Warehouse Automation

Motivation

Intensive Labor Work

Limited Budget

ASK HELP FOR

Objectives & Contributions

Challenges

- Object detection and pose estimation under cluttered shelf environment
- Motion plan and grasp plan for manipulation
- Robotic system and gripper design

amazon Picking Challenge

Solutions

- Object detection system with RGB-D sensor using Kernel Descriptor/Deep Learning
- Combined offline and online trajectory planning for accuracy and speed
- Vertical movement robotic platform with dual arm and vacuum gripper

Achievements

- ONLY Aussie Team
- ONLY Customised Robotic Platform
- Top 5 in 28 teams including MIT, UC Berkeley and etc.

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