

## A System for Generalized 3D Multi-Object Search Kaiyu Zheng, Anirudha Paul, Stefanie Tellex — presenter: Ifrah Idrees International Conference on Robotics and Automation (ICRA) 2023 Email correspondence: kzheng10@cs.brown.edu

## **Problem: Generalized Object Search**

Enable most robots today with a movable viewport to perform <u>object search</u> in an <u>off-the-shelf</u> manner.

**Challenges:** 3D, multi-object, limited FOV, occlusion, unreliable detectors, off-the-shelf object search system that generalizes across environments and robots – No such system exists (yet)!





A client-server construct.











References: [1] Zheng, et al. "Multi-resolution POMDP planning for multi-object search in 3D." IROS, 2021.

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