A Simple Person-Following Robot

Nansong Yi, Thomas Wang, Ollin Boer Bohan

Introduction

We built a person-following robot. It uses a camera, person-detecting NN, and simple reactive controller to follow a person.

Motivation

It could be used for video conferencing (track the person while they're being talked to) or possibly outdoor robots (e.g. having your hoverboard follow you around when not in use). It's kinda cute.

Related Work

I think some other people have done this before, although I'm not sure if they used vision only.

Methodology

We used a depth camera, YOLO, and a simple reactive controller. You can see it in action here.

Evaluation

We conducted ten walks through the robotics lab along the same path—the average time before a disengagement was . So it's okay. We also conducted tests to make sure it could successfully track people in the presence of other people.

Conclusion

We build a person-following robot, yay!

Team Member Contributions

We developed everything as a group.

References

• idk