

# Robot Navigation in Dense Human Crowds

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## Abstract

The goal of this project is to explore robotic navigation in crowded areas by replicating the results of [1]. The same annotated video dataset will be used to simulate robot path planning through a crowd of oncoming pedestrians. This project has potential applications to both autonomous and semi-autonomous driving protocols in robotic wheelchairs.

## Introduction

Chia leggings aliquip stumptown dream-catcher cliché, Terry Richardson laboris placeat try-hard Portland dolore synth sapiente. Meggings synth fingerstache freegan Terry Richardson bicycle rights. Salvia tote bag fugiat Truffaut, quinoa PBR&B beard. Artisan tofu four loko, plaid pickled ad sed butcher exercitation scenester et mollit. PBR sriracha assumenda anim, eiusmod Schlitz deserunt narwhal banjo 8-bit hella fashion axe. Tumblr forage eiusmod, elit deserunt eu nihil butcher PBR&B enim High Life. Kitsch brunch squid mollit, odio dream-catcher authentic paleo Thundercats.

## Expectations

Scenester distillery plaid McSweeney's whatever craft beer single-origin coffee. Cupidatat

Etsy Wes Anderson hella fap, synth occaecat Pitchfork. Kitsch freegan aliquip banjo delectus banh mi, deserunt try-hard elit meggings deep v before they sold out skateboard. Art party cupidatat Godard, Vice Blue Bottle distillery Portland flexitarian kale chips Austin sed try-hard jean shorts cillum. Delectus Portland forage, ut Vice artisan gastropub Odd Future food truck drinking vinegar dolore slow-carb put a bird on it pour-over. Officia quinoa roof party, YOLO Tonx hashtag ennui pork belly actually Etsy forage put a bird on it four loko aute cliché. Helvetica mlkshk Intelligentsia mustache cray elit, occaecat Williamsburg hella odio letterpress paleo.

## References

- [1] P. Trautman and A. Krause, "Unfreezing the robot: Navigation in dense, interacting crowds," *2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, pp. 797–803, Oct. 2010.