

Midterm Progress Report

ARC - Autonomous RC
Senior Capstone Project
Oregon State University
Winter 2017

Tao Chen, Cierra Shawe, Daniel Stoyer



Version 1.0

February 15, 2017

CONTENTS

1	Project purpose and goals	2
2	Cierra	2
2.1	Current Status	2
2.2	Left to do:	2
2.3	Challenges	2
3	Tao	2
3.1	Current Status	2
3.2	Left to do:	2
3.3	Challenges	3
4	Dan	3
4.1	Current Status	3
4.2	Left to do:	3
4.3	Challenges	3

1 PROJECT PURPOSE AND GOALS

The purpose of the Autonomous RC (ARC) project is to determine if it is possible to build an autonomous RC vehicle using commodity components, meaning components that are relatively inexpensive and can be bought at places like Radio Shack®, Best Buy®, or on Amazon.

Our goal is to make an RC vehicle navigate autonomous to a given waypoint/location, preferably at a high rate of speed. Stretch goals are to make the vehicle drift around corners and parallel park.



Fig. 1. Drifting example. Image from <https://autorally.github.io/>

While our main goal is to have a functioning autonomous RC vehicle we also hope that we can produce instructions that RC enthusiasts can follow to produce a functioning, consumer-grade autonomous RC vehicle of their own.

2 CIERRA

2.1 Current Status

2.2 Left to do:

- Something to do...

2.3 Challenges

Problems	Solutions
Problems that impeded progress.	Specific actions to resolve problems.

3 TAO

3.1 Current Status

3.2 Left to do:

- Something to do...

3.3 Challenges

Problems	Solutions
Problems that impeded progress.	Specific actions to resolve problems.

4 DAN

4.1 Current Status

4.2 Left to do:

- Something to do...

4.3 Challenges

Problems	Solutions
Problems that impeded progress.	Specific actions to resolve problems.