### Team Name
NYU Self-Drive

### Goals
At its core, this project-based course aims to create research teams that will be at the forefront of designing and prototyping technological advances in the ever-growing field of self-driving cars. This is a project that can involve quite diverse set of talents. We had a very humble start last year with a scrap golf cart and managed to win a very prestigious competition for autonomous vehicles. This exemplifies the potentials of team work at New York University.

### Research, Design or Technical Issues Involved or Addressed

<table>
<thead>
<tr>
<th>Research:</th>
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<tbody>
<tr>
<td>This is a field in which a lot of research is proprietary and inaccessible. Big companies invest a lot of capital per car to buy precise sensors and equipment to work with. We have been able to come up with several solutions on our own by optimizing the limited available resources.</td>
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<thead>
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<th>Design:</th>
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<td>A lot of work in this industry is done on cars especially developed for self-driving purpose but we have been able to learn and modify the mechanism to transform a golf-cart, little beetle into a machine built for autonomy.</td>
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<th>Technical:</th>
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<td>The most exciting aspect in our field is that there is no industry standard for self-driving cars. We are at a breakthrough point where we come up with unique ideas and execute them accordingly to form a product that can revolutionize the automotive industry.</td>
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### Sub-teams
- Mechanical design
- Electrical systems
- Artificial intelligence and machine learning team
- Computer vision and control
- Embedded systems
- Integrated Digital Media Development
- Sponsorship and public relations

### Methods/Technology
- Nvidia GPUs
- Linear Actuators
- Kangaroo and Sabertooth
- Microcontrollers
- Zed Stereo Cameras
- Arduino
- Deep Learning
- Computer Vision
- LIDARs
- RADARs
- GPS
- Control Theory
- Unity game engine
- Encoders

### Majors and Areas of Interest
- Electrical and Computer Engineering
- Computer Science
- Mechanical Engineering
- Business and Marketing

### Partners
- NYU Tandon School of Engineering
- NYU Stern
- Center for Cybersecurity
- AI Now Institute
- NYU Center for Data Science
- NYU Courant Institute of Mathematical Sciences

### Related Engineering Grand Challenges
- IGVC’19
- Making Little beetle a DMV approved vehicle

### Contacts
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