

MAE 198 A

Team #3

DonkeyCar with Line Detection

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Progress

- Camera angle adjusted to maximize road in field of view
- Several iterations of neural nets trained
 - Varying times + lighting conditions
 - Varying position of car in road (left of divider, centered on divider)
- Issues
 - Car has difficulty correcting errors
 - Lighting obfuscates lines in camera images
 - PS3 Controller finicky and requires frequent reconnection

Directions

- Create training sets with error correction
- Pre-process images to filter out noise
- Use pre-existing API for donkeycar to pipe filtered image into neural network
- Explore fine-tuning pretrained net