Downloading the Simulator

The Self-Driving Car Simulator you will use in this project.

We've created a simulator for you based on the Unity engine that uses real game physics to create a close approximation to real driving.

Download it here:

- **Linux (https://d17h27t6h515a5.cloudfront.net/topher/2016/November/5831f0f7_simulator-linux/simulator-linux.zip)**
- **macOS (https://d17h27t6h515a5.cloudfront.net/topher/2016/November/5831f290_simulator-macos/simulator-macos.zip)**
- **Windows 32-bit (https://d17h27t6h515a5.cloudfront.net/topher/2016/November/5831f4b6_simulator-windows-32/simulator-windows-32.zip)**
- **Windows 64-bit (https://d17h27t6h515a5.cloudfront.net/topher/2016/November/5831f3a4_simulator-windows-64/simulator-windows-64.zip)**

Beta Simulators

- **Linux (https://d17h27t6h515a5.cloudfront.net/topher/2017/January/587527cb_udacity-sdc-udacity-self-driving-car-simulator-dominique-development-linux-desktop-64-bit-5/udacity-sdc-udacity-self-driving-car-simulator-dominique-development-linux-desktop-64-bit-5.zip)**
- **macOS (https://d17h27t6h515a5.cloudfront.net/topher/2017/January/587525b2_udacity-sdc-udacity-self-driving-car-simulator-dominique-default-mac-desktop-universal-5/udacity-sdc-udacity-self-driving-car-simulator-dominique-default-mac-desktop-universal-5.zip)**
- **Windows (https://d17h27t6h515a5.cloudfront.net/topher/2017/January/58752736_udacity-sdc-udacity-self-driving-car-simulator-dominique-default-windows-desktop-64-bit-4/udacity-sdc-udacity-self-driving-car-simulator-dominique-default-windows-desktop-64-bit-4.zip)**

Here are the main differences between the stable simulator and the beta simulator:

1. Steering is controlled via mouse instead of keyboard. This creates better angles for training. Note the angle based on the force of the mouse movement and NOT the mouse distance. To steer hold the left mouse button and move left or right. To reset the angle to 0 simply lift your finger off the left mouse button.
2. You can toggle record by pressing R, previously you had to click the record button (you can still do that).
3. Recording saves the images to disk all at once recording is toggled off. This may cause a lag depending on the length of the recording session. Ways to alleviate this lag are being worked on.
4. You can takeover in autonomous mode. While W or S are held down you can control the car the same way you would in training mode. This can be helpful for debugging. As soon as W or S are let go autonomous takes over again.
5. Pressing the spacebar in training mode toggles on and off cruise control (effectively presses W for you).
6. Only the center camera is recorded (open to change).

Running the Simulator

Once you've downloaded it, extract it and run it.

When you first run the simulator, you'll see a configuration screen asking what size and graphical quality you would like. We suggest running at the smallest size and the fastest graphical quality. We also suggest closing most other applications (especially graphically intensive applications) on your computer, so that your machine can devote its resource to running the simulator.

Training Mode

Running the Simulator

Select Training Mode in the above screen to start driving the car.

The next screen gives you two options: Training Mode and Autonomous Mode.

First, select Training Mode.

You'll enter the simulator and be able to drive the car with your arrow keys, just like it's a video game. Try it!

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