In this project you'll revisit the lake race track from the Behavioral Cloning Project. This time, however, you'll implement a PID controller in C++ to maneuver the vehicle around the track!

The simulator will provide you the cross track error (CTE) and the velocity (mph) in order to compute the appropriate steering angle.

One more thing. The speed limit has been increased from 30 mph to 100 mph. Get ready to channel your inner Vin Diesel and try to drive **SAFELY** as fast as possible! **NOTE: you don't have to meet a minimum speed to pass.**

What You'll Receive

1. A **GitHub repo with starter code** that you can fork.
2. A simulator, download from the **releases** page of the project repo. You should download the most recent version.

Project Submission

1. Clone/fork the project's template files from the **project repository** and have a look at the **rubric here**. (Note: Please do not submit your project as a pull request against our repo!)
2. Build a PID controller and tune the PID hyperparameters by applying the general processing flow as described in the previous lessons.
3. Test your solution on the simulator!
4. When the vehicle is able to drive successfully around the track, submit! Remember to include a file addressing the reflection portion of the project in .txt, .md, .html, or .pdf format.
5. Try to see how fast you get the vehicle to **SAFELY** go!