

Hi,

I would like to create a simple python project simulating an animation of a car running up and down a hill with different road settings, weather settings, and how these different settings will affect the car speed. Note this project is for beginners/ amateur Python user, so please keep it as basic and simple as possible.

1. For the car, the user will need to input its dimensions: length, width, height, weight. Since this is a simple project, you can treat the car as a rectangle box.
2. For the hill, the length, slope will be up to you
3. For the road settings, there will be two scenarios: smooth and rough. For the smooth road, there will be no friction, and for rough road, you will need to account for friction. Friction coefficient is up to you
4. For weather settings, there will be three scenarios: normal, snow, rain. For the normal road condition, the car will travel with regular speed, for snow, the car will travel with half speed, as for rain, the car will travel with  $\frac{3}{4}$  of the speed.
5. Finally, I would like to see the time it took for the car to travel through the hill.

Below is a simple illustration of how I want the animation to be:

