Start

Get Scenario  
Get Time Limit  
Get Goal Position  
Get Mode  
Get Output File

N

N

N

N

Simulation Done

Y

Start new Run

CP overflow?

Increment CP at current CS

N

Simulation Done

Y

Step the time

Y

Mode 2?

?

Set CP length to current CS + 1

Mode 1?

Best Run = Current Run

Y

Y

Current time  
 <  
 Best time

“Goal Met”

Car X-position  
 >=  
 Goal X-position

Derive current CS

Initialize vehicle and terrain

Build “All Forward” CP

Create output file

Increment CP at current CS

N

“Car Falling”

Y

Car Y-position  
 >=  
 0

N

Simulation Done

Y

Start new Run

CP overflow?

N

Simulation Done

Y

Start new Run

CP overflow?

Increment CP at current CS

N

Simulation Done

Y

Start new Run

CP overflow?

Increment CP at current CS

N

N

N

Current CS  
 ==  
 Last CS

Y

(Current X-pos – Last X-pos)  
 < .003  
 CP Length

“Car Stuck”

Y

“Time Limit Met”

Current CS  
 >=  
 CP Length

Last CS = Current CS

Y

Increment CP at current CS

N

N

Apply Negative Torque

Apply Positive Torque

Y

CP at current CS  
 == 1  
 0

Print run number and current CP

Y

Current CS  
 ==  
 0

“Time Limit Met”

Current CS  
 >=  
 CP Length