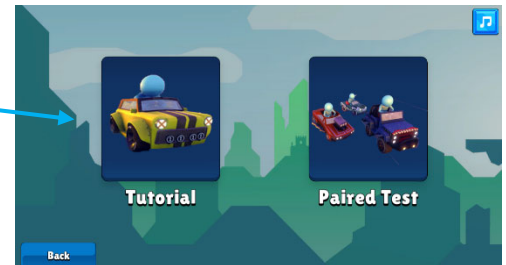
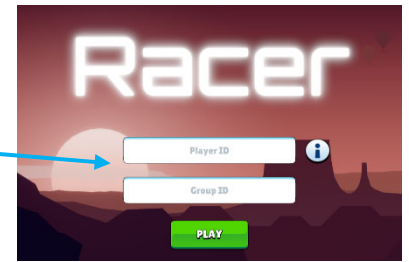
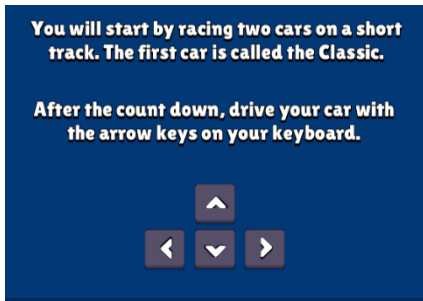


Racer and RacerLite Game Instructions:

Go to the website <https://stat2games.sites.grinnell.edu> and select the **Racer** tab, and then click the **Play Racer** button.

- Enter a **Player ID** and a **Group ID**. Any combination of alpha-numeric characters will work. *Note that this ID will be public on the web, so do not use your actual name for a PlayerID.*
- Click the **Play** button:
- Play the **Tutorial** first.

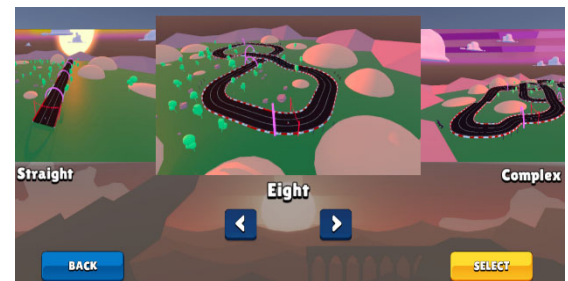
Goal: Reach the finish line as soon as possible.



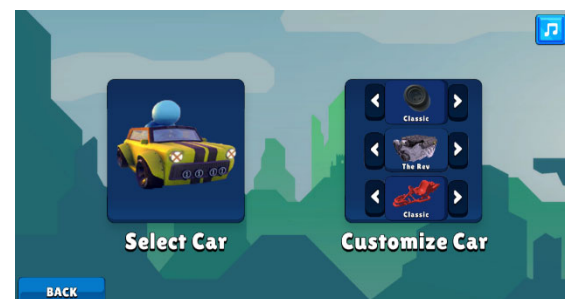
After the tutorial is complete, go to the **Menu** page and select the paired test. Click on "Add the first car" to choose a car, then repeat for the second car. Then click on **Select Track**.



Use the arrow keys to view each track and click **Select** to choose a track.



The key difference between the **RacerLite** and the **Racer** game is that the **Racer** game allows players to create their own customized car.



Racer Variable Descriptions:

Variable Name	Type	Description
GameNumber:	Integer	Each game is assigned a unique game number
Date	Date	The date and time the game was played.
PlayerID	Categorical	Any alpha-numeric term used for each player
GroupID	Categorical	Any alpha-numeric term used for each player or group. Often instructors ask all students in the class to use the same GroupID
Potential response variables		
FinishTime	Quantitative	The time it took to finish the track
TimeToTopSpeed	Quantitative	The time it took to the car to reach the top speed
TopSpeedreached	Quantitative	The top speed of the car
TimeTo30	Quantitative	The time it took to reach 30 mph
TimeTo60	Quantitative	The time it took to reach 60 mph
TimeTo100	Quantitative	The time it took to reach 100 mph
CheckPoint1	Quantitative	The time it took to reach check point 1
CheckPoint2	Quantitative	The time it took to reach check point 2
CheckPoint3	Quantitative	The time it took to reach check point 3
Potential explanatory variables		
CarID	Categorical	There are 27 different cars, based on tires, engine, and body selected.
Tire	Categorical	The name of the tire being used - there are three types of tires
Engine	Categorical	The name of the engine being used - there are three types of engines
Body	Categorical	The name of the body being used - there are three types of body
Track	Categorical	The name of the track that the car is driving on. There are five types of tracks
Booster	Categorical	Whether a booster option was selected
Other variables	Quantitative	There are several other variables that provide detailed quantitative information that directly corresponds to each specific CarID. They are ParameterTopSpeed, Acceleration, AccCurve, SuspensionHeight, SuspensionSpring, SuspensionDamp, Drag, Steer, Grip, Braking, Gravity

Sample student handouts, instructor notes, and research activities for some games are available here:

<https://drive.google.com/drive/folders/1UyMtxFthjD57UyssqUL1poXbmlRxI1ZM>

Sample online activities are available here:

<https://dataspace.sites.grinnell.edu/racer1.html>

Page 1: Using summary statistics and graphs to compare two different cars.

Page 2: Conduct a paired t-test to determine which car is faster.

Page 3: Design your own experiment to determine which car is fastest.