





MENU**Email:** mail@unityphysicstools.net

Unity Physics Tools

[\(index.php\)](#)

WYSWYG Rope Editor	>
WYSWYG Trajectory Editor	>
 Overview (index.php?id=pteo)	
 Samples (index.php?id=ptes)	
 Documentation (index.php?id=pted)	
 Buy (index.php?id=pteb)	
Utility	>

Documentation

One can create from a very simple to very complex trajectory using this trajectory editor in just few minutes.

Creation

- Adding the trajectory to your scene is very simple. just follow the 3 simple steps.
 1. Create an empty game object.
 2. Attach the Trajectory behavior to it.
 3. Attach the Trajectory drawer to actually see the trajectory
 4. Attach the Trajectory creator to create the trajectory from predefined templates
 5. Setup the behavior according to the need.

Trajectory Setup

- From Predefined Path

1. Num Way Pts: Number of way points to have in the trajectory

2. Line

▼ Select Type

Type: **LINE**

Start Pt: X 12 Y 0 Z 0

End Pt: X 0 Y 0 Z 0

- Start Point: Trajectory start point
- End Point: Trajectory end point

3. Circle

▼ Select Type

Type: **CIRCLE**

Fraction: 1

Center: X 0 Y 0 Z 0

Axis: X 0 Y 1 Z 0

Radius: 10

- Fraction: Fraction of the circle to be used for making the trajectory.
- Center: The perpendicular axis of the circle
- Axis: The circle axis
- Radius: The radius of the circle

4. Ellipse

▼ Select Type

Type: **ELLIPTICAL**

Fraction: 1

Center: X 0 Y 0 Z 0

Axis: X 0 Y 1 Z 0

Major Axis: 20

Minor Axis: 10

- Fraction: Fraction of the ellipse to be used for making the trajectory.
- Center: The center of the ellipse
- Axis: The perpendicular axis of the ellipse
- Major Axis: The length of the major axis
- Minor Axis: The length of the minor axis

5. Square

▼ Select Type

Type: **SQUARE**

Center: X 0 Y 0 Z 0

Axis: X 0 Y 1 Z 0

Side Length: 10

- Center: The center of the ellipse
- Axis: The perpendicular axis of the square
- Side Length: The length of the side of the square

6. Rectangle

▼ Select Type

Type: **RECTANGULAR**

Center: X 0 Y 0 Z 0

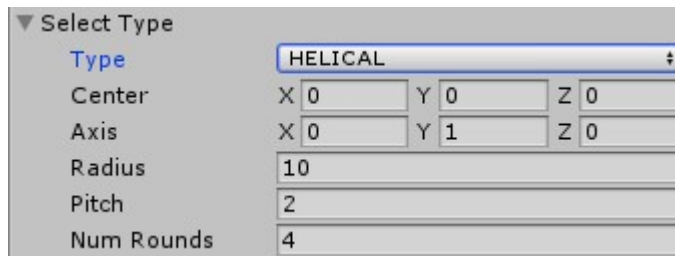
Axis: X 0 Y 1 Z 0

Length: 20

Width: 10

- Center: The center of the ellipse
- Axis: The perpendicular axis of the rectangle
- Length: The length of the rectangle
- Width: The width of the rectangle

7. Helical



Select Type			
Type	HELICAL		
Center	X 0	Y 0	Z 0
Axis	X 0	Y 1	Z 0
Radius	10		
Pitch	2		
Num Rounds	4		

- Fraction: Fraction of the helix to be used for making the trajectory.
- Center: The center of the helix
- Axis: The axis of the helix
- Radius: The radius of the helix
- Pitch: The pitch of the helix
- Num Rounds: The number of rounds in helix

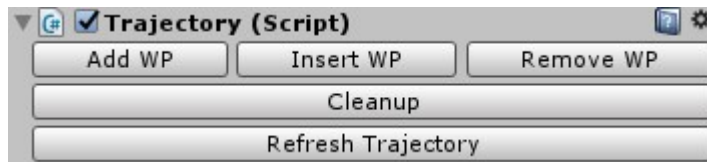
• From Scratch

1. Create an empty game object
2. Add TrajectoryDrawer Component to it

This will also add Trajectory component to the game object also if not already present.

TrajectoryDrawer component is need only when you want to show the trajectory as well.

3. Use Add WP button to add way points

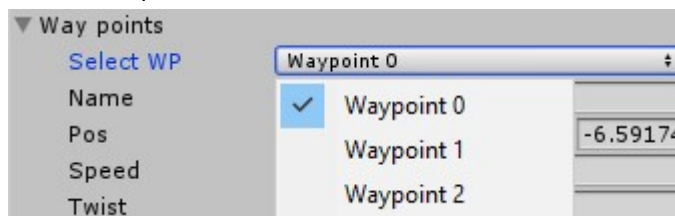


Trajectory (Script)		
Add WP	Insert WP	Remove WP
Cleanup		
Refresh Trajectory		

We need atleast 2 points to create a trajectory. So atleast add two way points.

As you add way points to the trajectory then by default get added in the direction from second last way point to last way point.

4. You can then move the way points from the Scene window or from by selecting the way point from the inspector window.

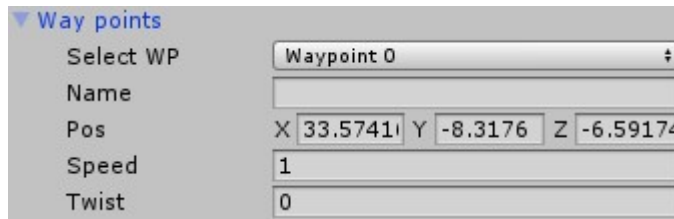


Way points	
Select WP	Waypoint 0
Name	Waypoint 0
Pos	-6.59174
Speed	
Twist	

You can also insert a way point before the selected way point or remove the selected way point. The trajectory will be updated automatically.

5. Way Point settings

Unlike other trajectory editors the way points in our trajectory editors are real game objects. Some of the setting like name, position, speed and twist can be modified from the inspector UI as well as the scene ui.



- Name: Name of the way point
- Pos: Position of the way point
- Speed: Speed of the way point
- Twist: Twist of the way point

6. Other settings



- Loop: If selected the trajectory will be closed loop automatically connecting last and the first way point
- AutoUpdate: If selected the trajectory will be updated automatically when some of the waypoints get changed in position
- ShowWayPts: If selected the waypoints will be visible in scene and the game ui.

7. Clean Up button will delete the trajectory

(c) 2016 All rights reserved by Unity Physics Tools