

# Transform tools Documentation

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## Transform tools



Transform tools is an editor extension designed to make object placement faster and easier.

To open the window, click the menu item **Tools > Plugin Master > Transform tools > Transform tools**.

### Align

How to use:

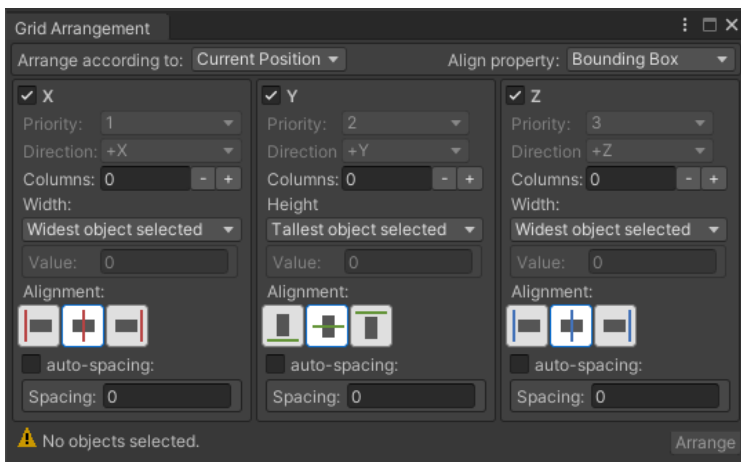
1. Select the objects.
2. Choose a reference point. Objects can be aligned **Relative to**:
  - a. The last or first object selected.
  - b. The biggest or smallest object. This works per axis depending on the size of the bounding box of each object.
  - c. The selection bounding box.
  - d. The canvas.
3. Choose an **Align property**: Bounding box, object center, or object pivot. It applies to all selected objects but the anchor.
4. Select the **space**: When aligning objects relative to an object, you can set whether the space is global or local.
5. Toggle the topmost transform **filter**. If selected, children of any selected transform will be filtered out.
6. Click one of the align buttons.

### Distribute

How to use:

1. Select the objects.
2. Click one of the distribute buttons.

## Grid Arrangement

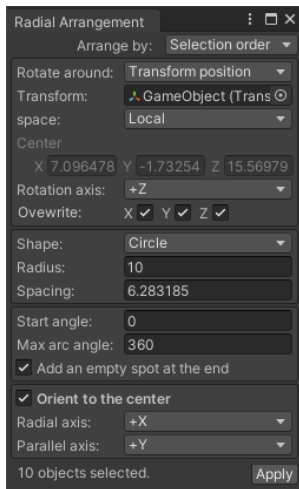


This tool can be used to arrange an arbitrary number of objects on a 3D grid.

Property	Function
Arrange according to	<b>Current position:</b> Objects are placed in the closest cells. <b>Selection order:</b> Objects are arranged in order of selection and placed in their cells by priority and axis direction. <b>Hierarchy order:</b> Objects are arranged in the order as they appear in the hierarchy and placed in their cells by priority and axis direction.
Align property	Bounding box or object pivot.
Axis Toggle (X, Y, Z)	If selected, axis values are overwritten.
Priority	When objects are arranged according to the selection order, objects are first arranged on axes with low priority.
Direction	Defines the positive or negative direction in which objects are arranged one after another.
Columns Rows	For placing objects, the grid is divided into cells, rows on Y axis, and columns on the X and Z axis.
Width Height	<b>Widest/Tallest object per column/row:</b> cells are given the size of the biggest object in their row or column. <b>Widest/Tallest object selected:</b> All cells are given the size of the biggest object selected. <b>Custom:</b> All cells are given the custom size set by the user.
Alignment	Defines how the objects are placed inside the cell
Auto-spacing	If selected, when the selected objects have a common parent which is RectTransform, divides the available space to distribute the objects evenly.
Spacing	Defines the separation between cells. The spacing can be negative.
Arrange Button	Applies settings to selection.



## Radial Arrangement



This tool allows you to arrange an arbitrary number of objects in radial patterns such as arcs, circles, ellipses, and spirals.

Property	Function
<b>Arrange according to</b>	<b>Selection order:</b> Objects are arranged in order of selection. <b>Hierarchy order:</b> Objects are arranged in the order as they appear in the hierarchy and placed in their cells by priority and axis direction.
<b>Rotate around</b>	<b>Selection center:</b> Center of the selection bounding box. <b>Transform position:</b> The pivot of a transform selected by the user. <b>Object bounds center:</b> Bounding box center of an object selected by the user. <b>Custom Position:</b> Point defined by the user
<b>Rotation axis</b>	The axis around which the selected objects are arranged.
<b>Overwrite (X, Y, Z)</b>	If selected, axis values are overwritten.
<b>Shape</b>	<b>Circle:</b> Defined by its radius. <b>Circular Spiral:</b> Defined by its start and end radius. <b>Ellipse:</b> Defined by its X and Y axes <b>Elliptical Spiral:</b> Defined by its start and end axes.
<b>Start angle</b>	The angle at which the first object is placed.
<b>Max arc angle</b>	The angle between the first and last object.
<b>Add an empty spot at the end</b>	This is useful when you want to create a closed shape like a circle or an ellipse.
<b>Orient to the center</b>	If selected, objects are oriented towards the center.
<b>Radial axis</b>	The axis of the object that is oriented towards the center.
<b>Parallel axis</b>	The axis of the object that is oriented in the same direction as the rotation axis.

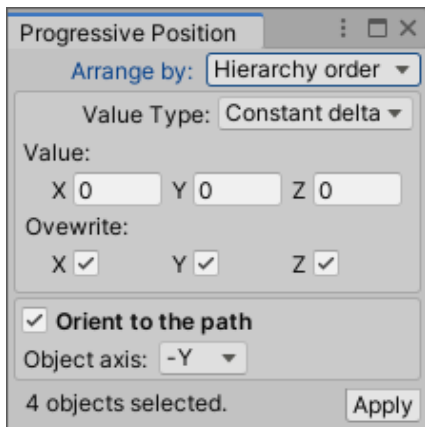


## Rearrange

These tools allow you to swap the positions of the selected objects according to the selection order or the hierarchy order.



## Position Progression



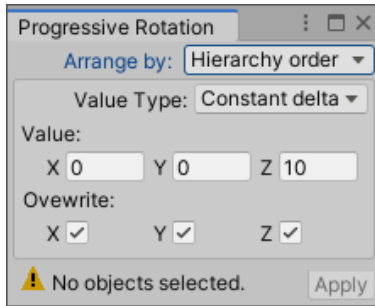
This tool allows you to place a selection of game objects separated by a distance given by a constant, a curve, or the size of the object's bounding box.

The position of each object is incrementally set from the position of the first object.

Property	Function
<b>Arrange by</b>	<b>Selection order:</b> Objects are arranged in order of selection. <b>Hierarchy order:</b> Objects are arranged in the order as they appear in the hierarchy and placed in their cells by priority and axis direction.
<b>Value Type</b>	<b>Constant delta:</b> The distance between objects is given by a constant value defined by the user. <b>Curve:</b> The position of the objects is given by a curve defined by the user for each axis. <b>Object size:</b> The distance between objects is given by the size of the object's bounding box.
<b>Overwrite (X, Y, Z)</b>	If selected, axis values are overwritten.
<b>Orient to the path</b>	If selected, each object is oriented towards the next object.
<b>Object axis</b>	The axis of the object that is oriented towards the next object.



## Rotation Progression



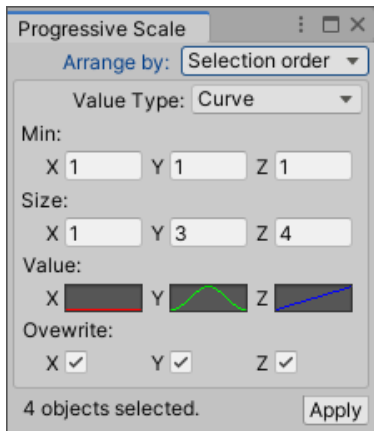
This tool allows you to change the rotation of each object in a selection incrementally.

The delta of rotation between one object and the next can be defined by a constant or a curve.

The rotation of each object is incrementally set from the rotation of the first object.



## Scale Progression



This tool allows you to change the scale of each object in a selection incrementally.

The delta of scale between one object and the next can be defined by a constant or a curve.

The local scale of each object is incrementally set from the local scale of the first object.



## Center Pivot

This tool allows you to center the pivot of 3D objects, Sprites and RectTransforms.

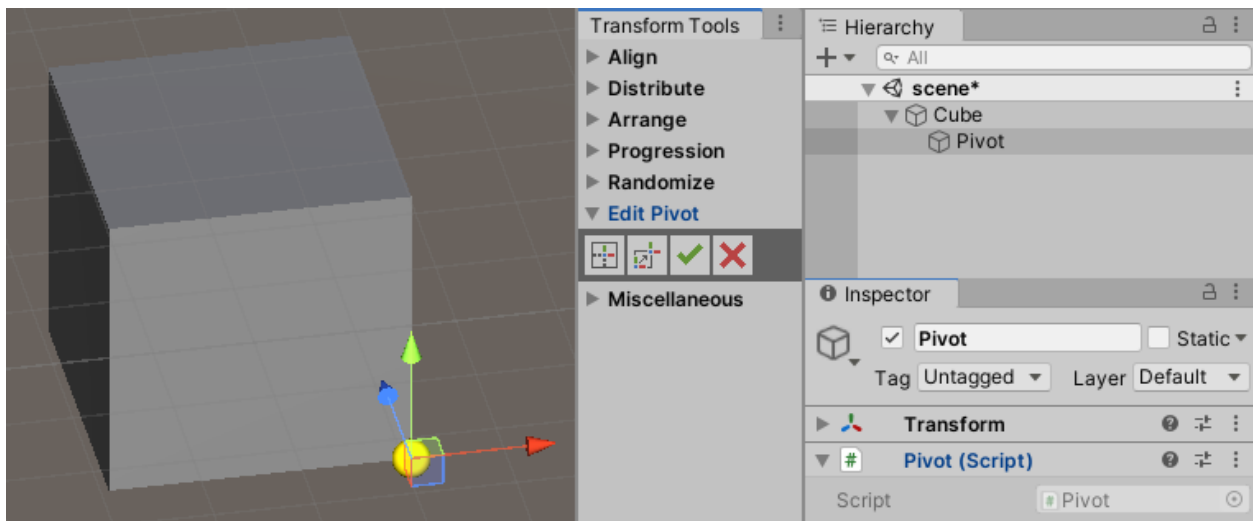
How to use:

1. Select the object.
2. Click the **center pivot** button.
3. If the object has a mesh filter, the user is asked if he/she wants to save the mesh as a new asset, because changing the pivot modifies the mesh.



## Edit Pivot

This tool creates a temporary object that allows you to edit the pivot position and rotation of the selected object.



How to use:

1. Select the object.
2. Click the **edit pivot** button.
3. A yellow sphere appears representing the current position and rotation of the pivot.
4. Move and rotate the pivot as you wish. You can press and hold the **V** key to activate vertex snapping mode.
5. Click the **apply/cancel** button next to the **edit pivot** button.
6. If the object has a mesh filter, the user is asked if he/she wants to save the mesh as a new asset, because changing the pivot modifies the mesh.
7. After applying or canceling the yellow sphere disappears.

## **Randomize**

Randomize Positions

☒ **Randomize X**  
min: -1 max: 1

☒ **Randomize Y**  
min: -1 max: 1

☒ **Randomize Z**  
min: -1 max: 1

Multiplier: 1

9 objects selected. Randomize

Randomize Rotations

☒ **Randomize X**  
min: -180 max: 180

☒ **Randomize Y**  
min: -180 max: 180

☒ **Randomize Z**  
min: -180 max: 180

Multiplier: 1

9 objects selected. Randomize

Randomize Scales

Separate Axes ☒

☒ **Randomize X**  
min: -0.1 max: 0.1

☒ **Randomize Y**  
min: -0.1 max: 0.1

☒ **Randomize Z**  
min: -0.1 max: 0.1

Multiplier: 1

9 objects selected. Randomize

Adds a random value to the current property value (position, local rotation, or local scale) of each selected object. The result is multiplied by the **multiplier** before applying.

## **Homogenize**

Homogenize Spacing

☒ **Homogenize X**  
Strength: 0.1

☒ **Homogenize Y**  
Strength: 0.1

☒ **Homogenize Z**  
Strength: 0.1

⚠ No objects selected. Homogenize

Homogenize Rotation

☒ **Homogenize X**  
Strength: 0.1

☒ **Homogenize Y**  
Strength: 0.1

☒ **Homogenize Z**  
Strength: 0.1

⚠ No objects selected. Homogenize

Homogenize Scale

Separate Axes ☒

☒ **Homogenize X**  
Strength: 0.1

☒ **Homogenize Y**  
Strength: 0.1

☒ **Homogenize Z**  
Strength: 0.1

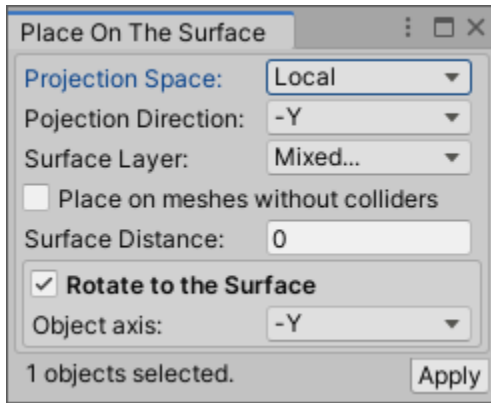
⚠ No objects selected. Homogenize

Even out the spacing, rotation and scales values of the selected objects. This function can be applied in steps, the **strength** value is used to define the normalized size of each step.





## Place On The Surface



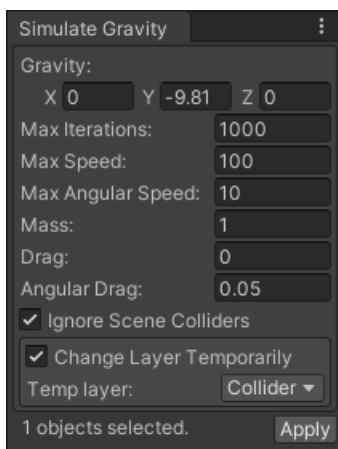
Place selected objects on the closest surface in the direction defined by the user.

If no surface is found in the defined direction, the object remains in the same position.

Property	Function
<b>Projection Space and Projection Direction</b>	defines the direction in which you want to project the object on the surface, it can be in <b>world</b> or <b>local</b> space.
<b>Surface distance</b>	Distance from the point of contact of the object with the surface, it can be positive above the surface or negative below the surface.
<b>Rotate to the surface</b>	If selected, each selected object is oriented perpendicular to the surface.
<b>Object axis</b>	The axis of the object that is oriented towards the surface.



## Simulate Gravity



Simulates gravity and physics on all selected objects.

Temporary MeshColliders are added to all the meshes in the selection, and temporary RigidBodies are added to the topmost selected objects. After simulation, all temporary components are removed.

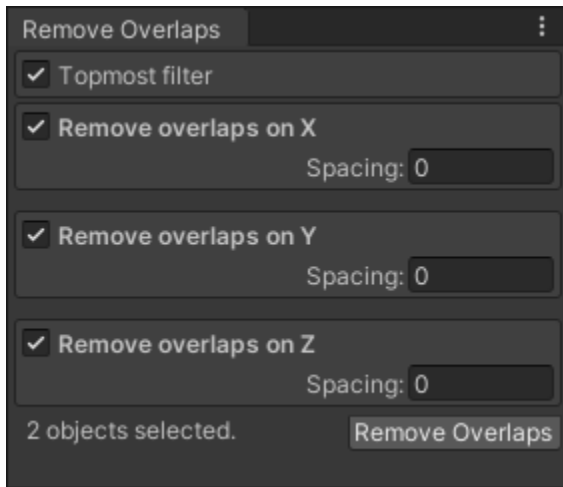
You can define some physical quantities such as mass, drag, maximum speed and also the gravity force.

The simulation runs until all selected objects are at rest or up to a maximum of iterations.

You can temporarily change the layer of objects to make sure they collide with the surface.



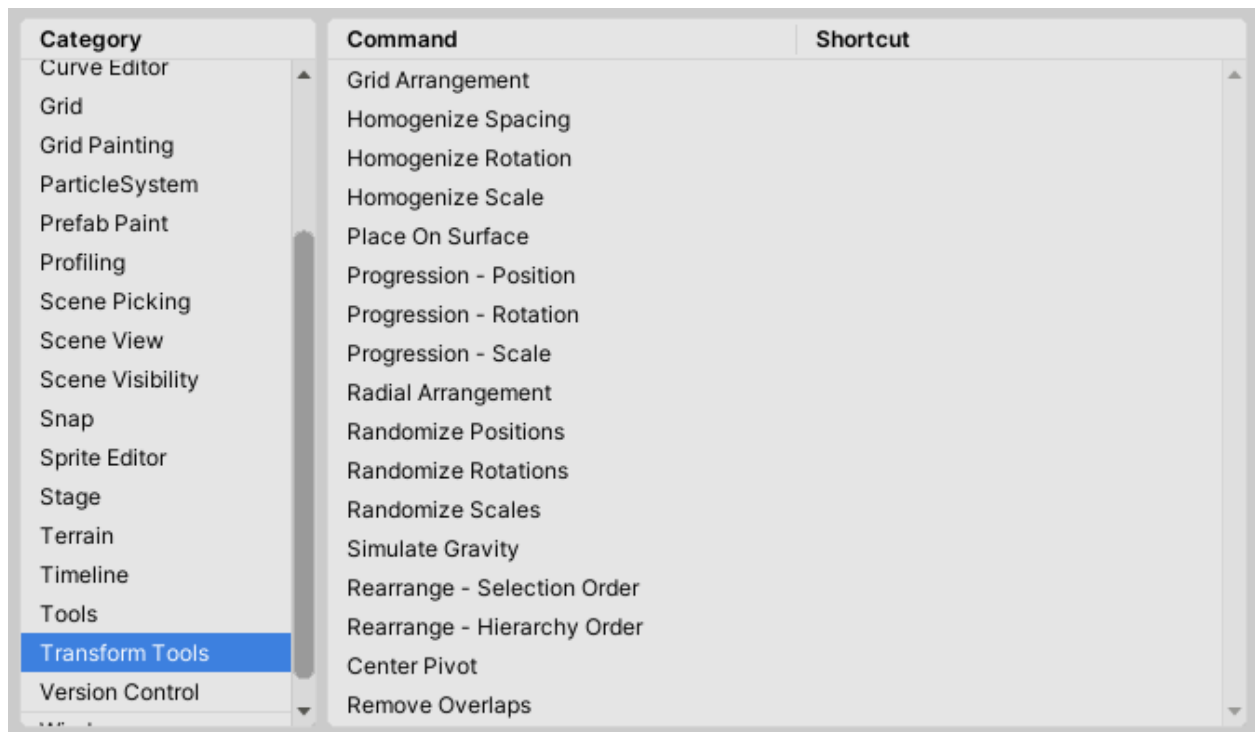
## Remove Overlapping



This tool allows you to move objects far enough so that they do not overlap. The **spacing** value defines the minimum space between adjacent objects, it can be negative.

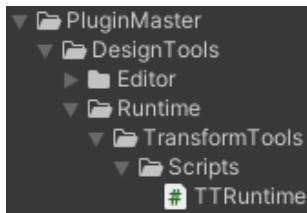
You can select up to **50** objects to remove the overlap.

## Shortcuts



Some of the functionality is exposed to the Unity Shortcuts manager. The Shortcuts manager lets you view and manage keyboard shortcuts, you can access it from Unity's main menu. When the shortcut is executed, the tool window opens if necessary and then the result is applied.

## Runtime Functions



**TTRuntime** is a static class that exposes some of the methods used by the editor extension for use at runtime. Using this class is completely optional and editor independent, so if you don't need it and don't want it to be included in the build, **you can remove it**.

## Support and feedback

Please send us feedback or ask for support via the [Unity forum](#) or the [Discord server](#). We do our very best to reply to all inquiries within 24 hours.

We hope you love it! If you do, would you consider posting an [online review](#)? This helps us to continue providing great products and helps other developers to make confident decisions.