



## 12.1.9 Editors - Geometry Nodes Editor - Header - Add Menu - Curve Primitives

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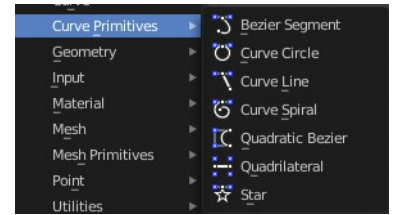
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## Add menu - Curve Primitives

Add curve primitives in different shapes.



## Bezier Segment

Adds a bezier curve segment.

### Inputs

#### **Resolution**

The number of edges on the curve.

#### **Start, End**

Positions of the start and end control point of the curve.

#### **Start Handle, End Handle**

Positions of the handles used to define the shape of the curve.



### Properties

#### **Mode**

#### **Position**

The handle inputs are the absolute positions of the handles in 3D space.

#### **Offset**

The handle positions are relative to the control point on the curve. The handle inputs give the offset from the control points.

### Outputs

#### **Curve**

Bezier spline generated from the inputs.

## Curve Circle

Adds a curve in circle shape.

### Inputs

#### **Resolution**

Number of edges on the circle.

#### **Radius**

The radius of the circle.

#### **Point 1, Point 2, Point 3**

Appears when you change the method to Points. Defines three points on the circle. The order of the points determines the direction (clockwise or counterclockwise) of the circle.

Note that because of the finite resolution, the three points do not necessarily lie on the generated curve.

### Properties

#### **Mode**

#### **Points**

The position and radius of the circle is defined by three points. The center of the circle is also given as an output. If the three points lie on one line, no geometry is generated.

#### **Radius**

The circle is defined by the radius.

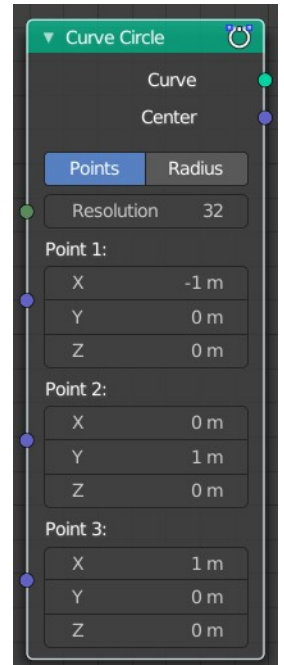
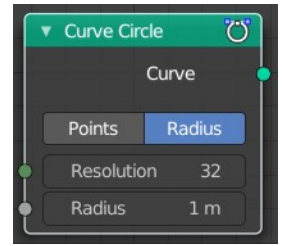
### Outputs

#### **Curve**

Poly spline generated from the inputs.

#### **Center**

Appears when you change the method to Points. The center of the circle defined by the three points.



## Curve Line

Adds a curve in the shape of a straight line.

### Properties

#### **Points**

Calculates the curve by a start and end point.

#### **Start**

The start point of the curve.

#### **End**

The end point of the curve.

#### **Direction**

Calculates the curve by a start point, a direction vector and the length of the curve.

#### **Start**

The start point of the curve.

#### **Direction**

The direction vector.

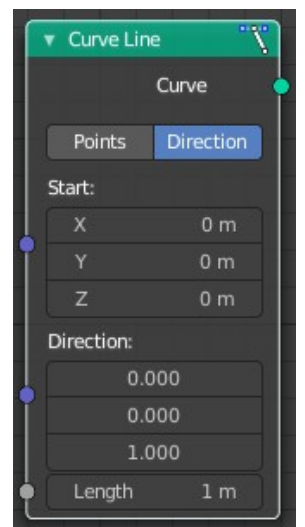
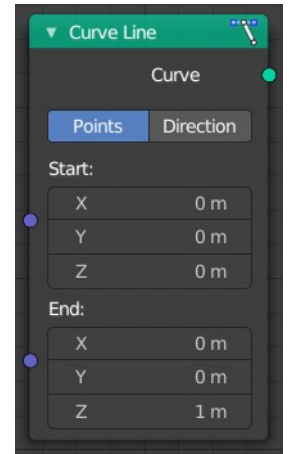
#### **Length**

The length of the curve.

### Outputs

#### **Curve**

The created curve.



## Curve Spiral

Adds a curve in spiral shape. By default the spiral twists clockwise.

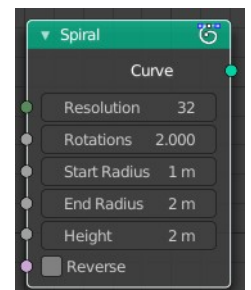
### Inputs

#### **Resolution**

Number of edges for each full rotation.

#### **Rotations**

Number of times the spiral makes a full rotation.



## ***Start Radius, End Radius***

Radius of the start point and end point of the spiral. The radius of the spiral changes linearly between the two values over the whole spiral.

## ***Height***

Height of the spiral.

## ***Reverse***

Boolean value that changes the direction from clockwise to counterclockwise when turned on.

## **Outputs**

### ***Curve***

Poly spline generated from the inputs.

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## **Quadratic Bezier**

Adds a curve from the given control points. The generated shape is a parabola.

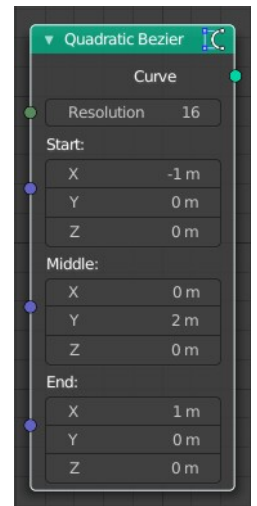
## **Inputs**

### ***Resolution***

The number of edges on the curve.

### ***Start, Middle, End***

Positions of the three control points. The generated curve passes through the two end points, and is tangent to the lines between the middle point and the two end points.



## **Outputs**

### ***Curve***

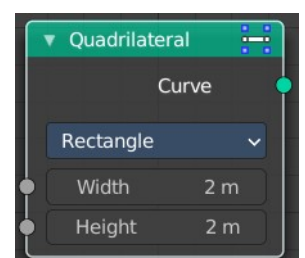
Poly spline generated from the inputs.

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## **Quadrilateral**

Adds a curve in different geometric shapes.

Note that the names does not necessarily fit to the generated geometry.

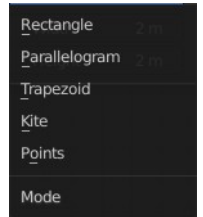


## Input

The input nodes may vary. See Properties.

## Properties

### Mode

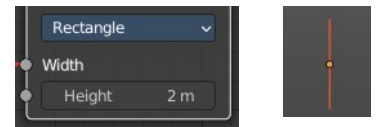


### Rectangle

creates a straight line in y direction.

### Width

The length of the straight line.



### Parallelogram

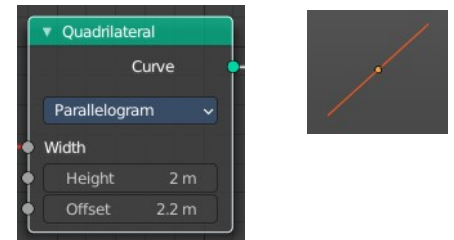
Creates a straight line that is adjustable in x and y direction.

### Height

The height of the line.

### Offset

The width of the line.



### Trapezoid

### Height

The height of the trapez.

### Bottom Width

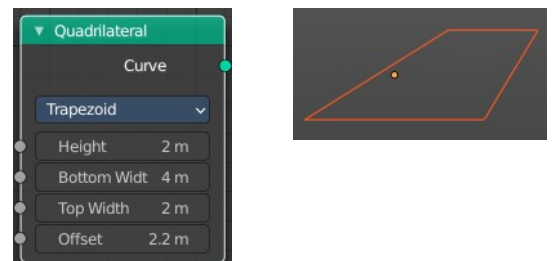
The width of the bottom line of the trapez.

### Top Width

The width of the top line of the trapez.

### Offset

The offset of the top line of the trapez.

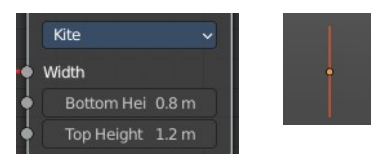


### Kite

creates a straight line in y direction. The curve end points are separately adjustable

### Bottom Height

The length of the bottom part of the line.

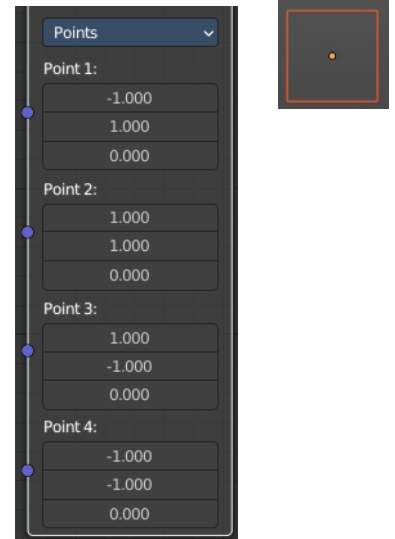


### **Top Height**

The length of the top part of the line.

### **Points**

Creates a rectangle. Each point of the rectangle is independantly adjustable in x, y and z position.

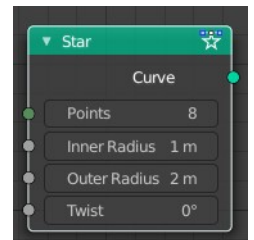


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### **Star**

Adds a curve in star shape.

This is done by connecting alternating points of two circles. The points on the inner circle are offset by a rotation so that they lie in between the points on the outer circle. This offset can be changed with the twist input.



### **Inputs**

#### **Points**

Number of points on each of the circles.

#### **Inner Radius, Outer Radius**

Radii of the two circles. The inner radius can be bigger than the outer radius.

#### **Twist**

Angle offset of the inner circle. The twist value rotates the points on the circle corresponding with the inner radius counterclockwise by the given angle.

### **Outputs**

#### **Curve**

Poly spline generated from the inputs.