



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

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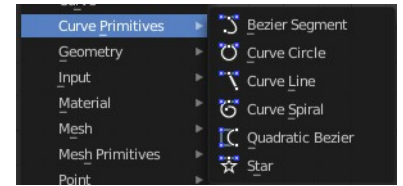
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## Add menu - Curve Primitives

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.

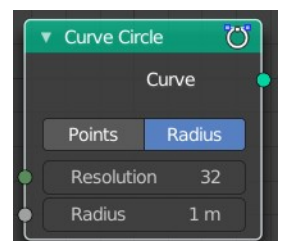
### Outputs

#### **Curve**

Bezier spline generated from the inputs.

## Curve Circle

Adds a curve in circle shape.



## Inputs

### **Resolution**

Number of edges on the circle.

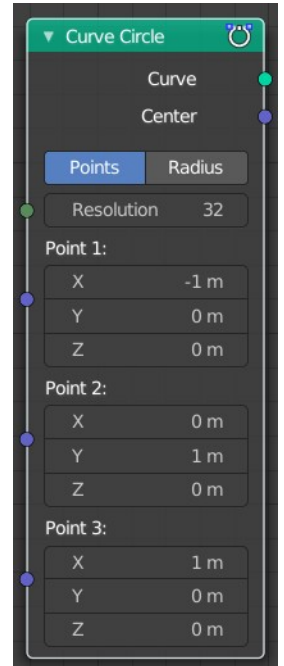
### **Radius**

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.

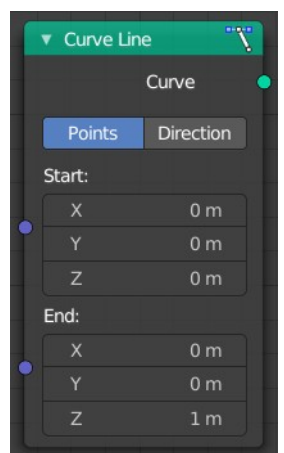
## Curve Line

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

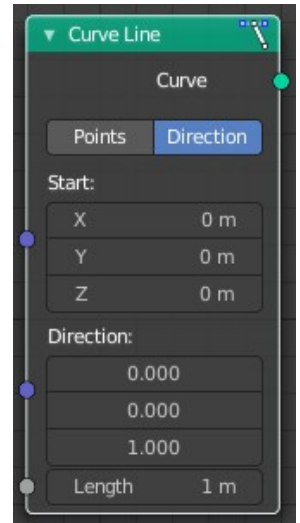
The start point of the curve.

### 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

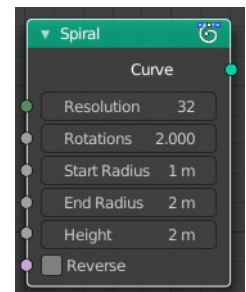
Radius of the start point and end point of the spiral. The radius of the spiral changes linearly between the two values over the whole spiral.

#### 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

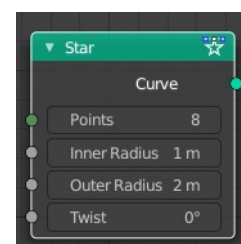
Poly spline generated from the inputs.

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## 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.