

# Surface Operators

```
bpy.ops.surface.primitive_nurbs_surface_circle_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))
```

Construct a Nurbs surface Circle

## PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (*mathutils.Vector of 3 items in [-inf, inf], (optional)*) – Location, Location for the newly added object
- **rotation** (*mathutils.Euler rotation of 3 items in [-inf, inf], (optional)*) – Rotation, Rotation for the newly added object
- **scale** (*mathutils.Vector of 3 items in [-inf, inf], (optional)*) – Scale, Scale for the newly added object

```
bpy.ops.surface.primitive_nurbs_surface_curve_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))
```

Construct a Nurbs surface Curve

## PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (*mathutils.Vector of 3 items in [-inf, inf], (optional)*) – Location, Location for the newly added object
- **rotation** (*mathutils.Euler rotation of 3 items in [-inf, inf], (optional)*) – Rotation, Rotation for the newly added object
- **scale** (*mathutils.Vector of 3 items in [-inf, inf], (optional)*) – Scale, Scale for the newly added object

```
bpy.ops.surface.primitive_nurbs_surface_cylinder_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))
```

Construct a Nurbs surface Cylinder

## PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (*mathutils.Vector of 3 items in [-inf, inf], (optional)*) – Location, Location for the newly added object
- **rotation** (*mathutils.Euler rotation of 3 items in [-inf, inf], (optional)*) – Rotation, Rotation for the newly added object

- **scale** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Scale, Scale for the newly added object

`bpy.ops.surface.primitive_nurbs_surface_sphere_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))`

Construct a Nurbs surface Sphere

#### PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Location, Location for the newly added object
- **rotation** (`mathutils.Euler` rotation of 3 items in [-inf, inf], (optional)) – Rotation, Rotation for the newly added object
- **scale** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Scale, Scale for the newly added object

`bpy.ops.surface.primitive_nurbs_surface_surface_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))`

Construct a Nurbs surface Patch

#### PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Location, Location for the newly added object
- **rotation** (`mathutils.Euler` rotation of 3 items in [-inf, inf], (optional)) – Rotation, Rotation for the newly added object
- **scale** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Scale, Scale for the newly added object

`bpy.ops.surface.primitive_nurbs_surface_torus_add(*, radius=1.0, enter_editmode=False, align='WORLD', location=(0.0, 0.0, 0.0), rotation=(0.0, 0.0, 0.0), scale=(0.0, 0.0, 0.0))`

Construct a Nurbs surface Torus

#### PARAMETERS:

- **radius** (*float in [0, inf], (optional)*) – Radius
- **enter\_editmode** (*boolean, (optional)*) – Enter Edit Mode, Enter edit mode when adding this object
- **align** (*enum in ['WORLD', 'VIEW', 'CURSOR'], (optional)*) – Align, The alignment of the new object
  - **WORLD** World – Align the new object to the world.
  - **VIEW** View – Align the new object to the view.
  - **CURSOR** 3D Cursor – Use the 3D cursor orientation for the new object.
- **location** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Location, Location for the newly added object
- **rotation** (`mathutils.Euler` rotation of 3 items in [-inf, inf], (optional)) – Rotation, Rotation for the newly added object
- **scale** (`mathutils.Vector` of 3 items in [-inf, inf], (optional)) – Scale, Scale for the newly added object

