RigidBodyObject(bpy_struct)

base class — bpy_struct

class bpy.types.**RigidBodyObject(bpy_struct)**

Settings for object participating in Rigid Body Simulation

angular_damping

Amount of angular velocity that is lost over time

TYPE:

float in [0, 1], default 0.1

collision_collections

Collision collections rigid body belongs to

TYPE:

boolean array of 20 items, default (False, False, False, False, False, False, False, False, False, False, False, False, False, False, False, False, False, False, False, False)

collision_margin

Threshold of distance near surface where collisions are still considered (best results when non-zero)

TYPE:

float in [0, 1], default 0.04

collision_shape

Collision Shape of object in Rigid Body Simulations

TYPE:

enum in Rigidbody Object Shape Items, default 'BOX'

deactivate_angular_velocity

Angular Velocity below which simulation stops simulating object

TYPE:

float in [0, inf], default 0.5

deactivate_linear_velocity

Linear Velocity below which simulation stops simulating object

TYPE:

float in [0, inf], default 0.4

enabled

Rigid Body actively participates to the simulation

TYPE:

boolean, default False

friction

Resistance of object to movement

TYPE:

float in [0, inf], default 0.5

kinematic

Allow rigid body to be controlled by the animation system

TYPE:

boolean, default False

linear_damping

Amount of linear velocity that is lost over time

TYPE:

float in [0, 1], default 0.04

mass

How much the object 'weighs' irrespective of gravity

TYPE:

float in [0.001, inf], default 1.0

mesh_source

Source of the mesh used to create collision shape

- `BASE` Base – Base mesh.
- `DEFORM` Deform – Deformations (shape keys, deform modifiers).
- `FINAL` Final – All modifiers.

TYPE:

enum in ['BASE', 'DEFORM', 'FINAL'], default 'BASE'

restitution

Tendency of object to bounce after colliding with another (0 = stays still, 1 = perfectly elastic)

TYPE:

float in [0, inf], default 0.0

type

Role of object in Rigid Body Simulations

TYPE:

enum in Rigidbody Object Type Items, default 'ACTIVE'

use_deactivation

Enable deactivation of resting rigid bodies (increases performance and stability but can cause glitches)

TYPE:

boolean, default True

use_deform

Rigid body deforms during simulation

TYPE:

boolean, default False

use_margin

Use custom collision margin (some shapes will have a visible gap around them)

TYPE:

boolean, default False

use_start_deactivated

Deactivate rigid body at the start of the simulation

TYPE:

boolean, default False

classmethod bl_rna_get_subclass(id, default=None)

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The RNA type or default when not found.

RETURN TYPE:

`bpy.types.Struct` subclass

classmethod bl_rna_get_subclass_py(id, default=None)

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The class or default when not found.

RETURN TYPE:

type

Inherited Properties

- `bpy_struct.id_data`

Inherited Functions

- `bpy_struct.as_pointer`
- `bpy_struct.driver_add`
- `bpy_struct.driver_remove`
- `bpy_struct.get`
- `bpy_struct.id_properties_clear`
- `bpy_struct.id_properties_ensure`
- `bpy_struct.id_properties_ui`
- `bpy_struct.is_property_hidden`
- `bpy_struct.is_property_overridable_library`
- `bpy_struct.is_property_readonly`
- `bpy_struct.is_property_set`
- `bpy_struct.items`
- `bpy_struct.keyframe_delete`
- `bpy_struct.keyframe_insert`
- `bpy_struct.keys`
- `bpy_struct.path_from_id`
- `bpy_struct.path_resolve`
- `bpy_struct.pop`
- `bpy_struct.property_overridable_library_set`
- `bpy_struct.property_unset`
- `bpy_struct.type_recast`
- `bpy_struct.values`

References

- `Object.rigid_body`