# RigidBodyConstraint(bpy_struct)

base class — `bpy_struct`

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

Constraint influencing Objects inside Rigid Body Simulation

### breaking_threshold

Impulse threshold that must be reached for the constraint to break

**TYPE:**

float in [0, inf], default 10.0

### disable_collisions

Disable collisions between constrained rigid bodies

**TYPE:**

boolean, default False

### enabled

Enable this constraint

**TYPE:**

boolean, default False

### limit_ang_x_lower

Lower limit of X axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default -0.785398

### limit_ang_x_upper

Upper limit of X axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default 0.785398

### limit_ang_y_lower

Lower limit of Y axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default -0.785398

### limit_ang_y_upper

Upper limit of Y axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default 0.785398

### limit_ang_z_lower

Lower limit of Z axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default -0.785398

### limit_ang_z_upper

Upper limit of Z axis rotation

**TYPE:**

float in [-6.28319, 6.28319], default 0.785398

**limit_lin_x_lower**

Lower limit of X axis translation

**TYPE:**

float in [-inf, inf], default -1.0

**limit_lin_x_upper**

Upper limit of X axis translation

**TYPE:**

float in [-inf, inf], default 1.0

**limit_lin_y_lower**

Lower limit of Y axis translation

**TYPE:**

float in [-inf, inf], default -1.0

**limit_lin_y_upper**

Upper limit of Y axis translation

**TYPE:**

float in [-inf, inf], default 1.0

**limit_lin_z_lower**

Lower limit of Z axis translation

**TYPE:**

float in [-inf, inf], default -1.0

**limit_lin_z_upper**

Upper limit of Z axis translation

**TYPE:**

float in [-inf, inf], default 1.0

**motor_ang_max_impulse**

Maximum angular motor impulse

**TYPE:**

float in [0, inf], default 1.0

**motor_ang_target_velocity**

Target angular motor velocity

**TYPE:**

float in [-inf, inf], default 1.0

**motor_lin_max_impulse**

Maximum linear motor impulse

**TYPE:**

float in [0, inf], default 1.0

**motor_lin_target_velocity**

Target linear motor velocity

**TYPE:**

float in [-inf, inf], default 1.0

**object1**

First Rigid Body Object to be constrained

**TYPE:**

Object

**object2**

Second Rigid Body Object to be constrained

**TYPE:**

Object

**solver_iterations**

Number of constraint solver iterations made per simulation step (higher values are more accurate but slower)

**TYPE:**

int in [1, 1000], default 10

**spring_damping_ang_x**

Damping on the X rotational axis

**TYPE:**

float in [0, inf], default 0.5

**spring_damping_ang_y**

Damping on the Y rotational axis

**TYPE:**

float in [0, inf], default 0.5

**spring_damping_ang_z**

Damping on the Z rotational axis

**TYPE:**

float in [0, inf], default 0.5

**spring_damping_x**

Damping on the X axis

**TYPE:**

float in [0, inf], default 0.5

**spring_damping_y**

Damping on the Y axis

**TYPE:**

float in [0, inf], default 0.5

**spring_damping_z**

Damping on the Z axis

**TYPE:**

**TYPE:**

      float in [0, inf], default 0.5

**spring_stiffness_ang_x**

    Stiffness on the X rotational axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_stiffness_ang_y**

    Stiffness on the Y rotational axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_stiffness_ang_z**

    Stiffness on the Z rotational axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_stiffness_x**

    Stiffness on the X axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_stiffness_y**

    Stiffness on the Y axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_stiffness_z**

    Stiffness on the Z axis

    **TYPE:**

        float in [0, inf], default 10.0

**spring_type**

    Which implementation of spring to use

- `SPRING1` Blender 2.7 – Spring implementation used in Blender 2.7. Damping is capped at 1.0.
- `SPRING2` Blender 2.8 – New implementation available since 2.8.

    **TYPE:**

        enum in ['SPRING1', 'SPRING2'], default 'SPRING1'

**type**

    Type of Rigid Body Constraint

    **TYPE:**

        enum in Rigidbody Constraint Type Items, default 'POINT'

**use_breaking**

    Constraint can be broken if it receives an impulse above the threshold

    **TYPE:**

        boolean, default False

boolean, default False

**use_limit_ang_x**

Limit rotation around X axis

**TYPE:**

boolean, default False

**use_limit_ang_y**

Limit rotation around Y axis

**TYPE:**

boolean, default False

**use_limit_ang_z**

Limit rotation around Z axis

**TYPE:**

boolean, default False

**use_limit_lin_x**

Limit translation on X axis

**TYPE:**

boolean, default False

**use_limit_lin_y**

Limit translation on Y axis

**TYPE:**

boolean, default False

**use_limit_lin_z**

Limit translation on Z axis

**TYPE:**

boolean, default False

**use_motor_ang**

Enable angular motor

**TYPE:**

boolean, default False

**use_motor_lin**

Enable linear motor

**TYPE:**

boolean, default False

**use_override_solver_iterations**

Override the number of solver iterations for this constraint

**TYPE:**

boolean, default False

**use_spring_ang_x**

Enable spring on X rotational axis

**TYPE:**

boolean, default False

**use_spring_ang_y**

Enable spring on Y rotational axis

**TYPE:**

boolean, default False

**use_spring_ang_z**

Enable spring on Z rotational axis

**TYPE:**

boolean, default False

**use_spring_x**

Enable spring on X axis

**TYPE:**

boolean, default False

**use_spring_y**

Enable spring on Y axis

**TYPE:**

boolean, default False

**use_spring_z**

Enable spring on Z axis

**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_constraint`

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