KinematicConstraint(Constraint)

base classes — bpy_struct, Constraint

class bpy.types.**KinematicConstraint(Constraint)**

Inverse Kinematics

chain_count

How many bones are included in the IK effect - 0 uses all bones

TYPE:

int in [0, 255], default 0

distance

Radius of limiting sphere

TYPE:

float in [0, 100], default 0.0

ik_type

TYPE:

enum in ['COPY_POSE', 'DISTANCE'], default 'COPY_POSE'

iterations

Maximum number of solving iterations

TYPE:

int in [0, 10000], default 0

limit_mode

Distances in relation to sphere of influence to allow

- LIMITDIST_INSIDE Inside – The object is constrained inside a virtual sphere around the target object, with a radius defined by the limit distance.
- LIMITDIST_OUTSIDE Outside – The object is constrained outside a virtual sphere around the target object, with a radius defined by the limit distance.
- LIMITDIST_ONSURFACE On Surface – The object is constrained on the surface of a virtual sphere around the target object, with a radius defined by the limit distance.

TYPE:

enum in ['LIMITDIST_INSIDE', 'LIMITDIST_OUTSIDE', 'LIMITDIST_ONSURFACE'], default 'LIMITDIST_INSIDE'

lock_location_x

Constraint position along X axis

TYPE:

boolean, default False

lock_location_y

Constraint position along Y axis

TYPE:

boolean, default False

lock_location_z

Constraint position along Z axis

Constraint position along Z axis

TYPE:

boolean, default False

lock_rotation_x

Constraint rotation along X axis

TYPE:

boolean, default False

lock_rotation_y

Constraint rotation along Y axis

TYPE:

boolean, default False

lock_rotation_z

Constraint rotation along Z axis

TYPE:

boolean, default False

orient_weight

For Tree-IK: Weight of orientation control for this target

TYPE:

float in [0.01, 1], default 0.0

pole_angle

Pole rotation offset

TYPE:

float in [-3.14159, 3.14159], default 0.0

pole_subtarget

TYPE:

string, default “”, (never None)

pole_target

Object for pole rotation

TYPE:

Object

reference_axis

Constraint axis Lock options relative to Bone or Target reference

TYPE:

enum in [‘BONE’, ‘TARGET’], default ‘BONE’

subtarget

Armature bone, mesh or lattice vertex group, …

TYPE:

string, default “”, (never None)

target

Target object

TYPE:

Object

use_location

Chain follows position of target

TYPE:

boolean, default False

use_rotation

Chain follows rotation of target

TYPE:

boolean, default False

use_stretch

Enable IK Stretching

TYPE:

boolean, default False

use_tail

Include bone's tail as last element in chain

TYPE:

boolean, default False

weight

For Tree-IK: Weight of position control for this target

TYPE:

float in [0.01, 1], default 0.0

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
- Constraint.mute

- Constraint.name
- Constraint.type
- Constraint.is_override_data
- Constraint.owner_space
- Constraint.target_space
- Constraint.space_object
- Constraint.space_subtarget
- Constraint.enabled
- Constraint.show_expanded
- Constraint.is_valid
- Constraint.active
- Constraint.influence
- Constraint.error_location
- Constraint.error_rotation

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
- Constraint.bl_rna_get_subclass
- Constraint.bl_rna_get_subclass_py