

simMujoco API reference
Data visualization/output
Web-browser based front-end
Data manipulation/transformation
Messaging/interfaces/connectivity
Remote API
ZeroMQ remote API
WebSocket remote API
ROS Interfaces
ROS Interface
simROS API reference
ROS 2 Interface
simROS2 API reference
simZMQ API reference
simWS API reference
Paths/trajectories
Path planning
simOMPL API reference
Synthetic vision
simIM API reference
simVision API reference
Custom user interfaces
simUI API reference
simUI XML syntax
simQML API reference
Import/export
XML format
URDF format
simURDF API reference
SDF format
simSDF API reference
Video exporter
simAssimp API reference
simGLTF API reference
simLDraw API reference
Commands/setting

MuJoCo plugin API reference

API functions that mainly serve to inject MuJoCo XML code

simMujoco.addFlexcomp

Description	Adds or injects a flexcomp to the MuJoCo world
Lua synopsis	int injectionId=simMujoco.addFlexcomp(map info)
Lua arguments	info: an information field that contains: <i>element</i> : the name of the XML element where the flexcomp XML code should be injected. <i>Can be empty if shapeHandle is not empty</i> <i>shapeHandle</i> : the handle of the shape where the flexcomp XML code should be injected. <i>Can be empty if element is not empty</i> <i>name</i> : the flexcomp name element. Make sure the name is unique, and possibly derived from the related shape <i>type</i> : the flexcomp type element. Only grid is currently supported <i>count</i> : the flexcomp count element <i>spacing</i> : the flexcomp spacing element <i>radius</i> : the flexcomp radius element <i>mass</i> : the flexcomp mass element <i>pose</i> : the flexcomp pose element <i>pin</i> : the flexcomp pin element (array of indices) <i>extraFlexcompXml</i> : additional xml code to be added to the flexcomp element (as attribute) <i>extraXml</i> : additional xml code to be added as a flexcomp element node <i>callback</i> : a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the flexcomp on-the-fly
Lua return values	injectionId : the id of the injection
Python synopsis	int injectionId=simMujoco.addFlexcomp(dict info)

simMujoco.composite

Description	Adds or injects a composite to the MuJoCo world
Lua synopsis	int injectionId=simMujoco.composite(string xml,map info)
Lua arguments	xml : the xml code corresponding to a composite object info : additional information about the composite: <i>element</i> : the name of the XML element where the composite XML code should be injected. <i>Can be empty if shapeHandle is not empty</i> <i>shapeHandle</i> : the handle of the shape where the composite XML code should be injected. <i>Can be empty if element is not empty</i> <i>prefix</i> : the composite prefix string. Make sure the prefix is unique, and possibly derived from the related shape <i>type</i> : the composite type. In newest Mujoco version only grid, and cable are supported types <i>count</i> : the size of the composite <i>responsibleMask</i> : the composite responsible mask <i>grow</i> : the amount the composite nodes should grow for visuals <i>callback</i> : a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the composite code on-the-fly
Lua return values	injectionId : the id of the injection
Python synopsis	int injectionId=simMujoco.composite(string xml,dict info)

simMujoco.getCompositeInfo

Description	Retrieves data about a composite
Lua synopsis	map.info=simMujoco.getCompositeInfo(int injectionId,int what)
Lua arguments	injectionId : the injection ID returned by simMujoco.composite what : the type of requested data: <i>0</i> : the positions of the composite nodes <i>1</i> : the poses of the composite nodes <i>2</i> : the triangles to render the composite <i>3</i> : the grown triangles to render the composite
Lua return values	info : the requested data
Python synopsis	dict.info=simMujoco.getCompositeInfo(int injectionId,int what)

simMujoco.getFlexcompInfo

Description	Retrieves data about a flexcomp
Lua synopsis	map.info=simMujoco.getFlexcompInfo(int injectionId,int what)
Lua arguments	injectionId : the injection ID returned by simMujoco.addFlexcomp what : the type of requested data: <i>0</i> : the positions of the flexcomp nodes <i>1</i> : the triangles to render the flexcomp
Lua return values	info : the requested data
Python synopsis	dict.info=simMujoco.getFlexcompInfo(int injectionId,int what)

simMujoco.getInfo

Description	Retrieves general information
Lua synopsis	string.info=simMujoco.getInfo(string.what)
Lua arguments	what : the information type. Currently only 'nameAndIds' and 'bodies' is supported
Lua return values	info : the requested information
Python synopsis	string.info=simMujoco.getInfo(string.what)

simMujoco.addInjection

Description	Adds or injects XML code into a MuJoCo world
Lua synopsis	int injectionId=simMujoco.addInjection(map.info)
Lua arguments	info : information field containing: <i>shapeHandle</i> : the handle of the shape where the XML code should be injected. Can be empty if element is not empty <i>element</i> : the name of the XML element where the XML code should be injected. Can be empty if shapeHandle is not empty <i>xml</i> : the XML code to inject <i>callback</i> : a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the xml code on-the-fly, if needed
Lua return values	injectionId : the id of the injection

Lua return values	injectionId : the id of the injection
Python synopsis	int injectionId=simMujoco.addInjection(dict info)

simMujoco.removeInjection

Description	Removes XML code from the MuJoCo world
Lua synopsis	simMujoco.removeInjection(int injectionId)
Lua arguments	injectionId : the injection ID returned by simMujoco.addFlexcomp, simMujoco.composite, or simMujoco.addInjection
Lua return values	
Python synopsis	simMujoco.removeInjection(int injectionId)