

## MuJoCo plugin API reference

API functions that mainly serve to inject MuJoCo XML code

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simMujoco.addFlexcomp
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Description	Adds or injects a flexcomp to the MuJoCo world
Lua synopsis	<code>int injectionId=simMujoco.addFlexcomp(map info)</code>
Lua arguments	<p><b>info</b>: an information field that contains:</p> <ul style="list-style-type: none"> <li><b>element</b>: the name of the XML element where the flexcomp XML code should be injected. Can be empty if shapeHandle is not empty</li> <li><b>shapeHandle</b>: the handle of the shape where the flexcomp XML code should be injected. Can be empty if element is not empty</li> <li><b>name</b>: the flexcomp name element. Make sure the name is unique, and possibly derived from the related shape</li> <li><b>type</b>: the flexcomp type element. Only grid is currently supported</li> <li><b>count</b>: the flexcomp count element</li> <li><b>spacing</b>: the flexcomp spacing element</li> <li><b>radius</b>: the flexcomp radius element</li> <li><b>mass</b>: the flexcomp mass element</li> <li><b>pose</b>: the flexcomp pose element</li> <li><b>pin</b>: the flexcomp pin element (array of indices)</li> <li><b>extraFlexcompXml</b>: additional xml code to be added to the flexcomp element (as attribute)</li> <li><b>extraXml</b>: additional xml code to be added as a flexcomp element node</li> <li><b>callback</b>: a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the flexcomp on-the-fly</li> </ul>
Lua return values	<b>injectionId</b> : the id of the injection
Python synopsis	<code>int injectionId=simMujoco.addFlexcomp(dict info)</code>

## simMujoco.composite

Description	Adds or injects a composite to the MuJoCo world
Lua synopsis	<code>int injectionId=simMujoco.composite(string xml,map info)</code>
Lua arguments	<p><b>xml</b>: the xml code corresponding to a composite object</p> <p><b>info</b>: additional information about the composite:</p> <ul style="list-style-type: none"> <li><b>element</b>: the name of the XML element where the composite XML code should be injected</li> <li>Can be empty if shapeHandle is not empty</li> <li><b>shapeHandle</b>: the handle of the shape where the composite XML code should be injected</li> <li>Can be empty if element is not empty</li> <li><b>prefix</b>: the composite prefix string. Make sure the prefix is unique, and possibly derived from the related shape</li> <li><b>type</b>: the composite type. In newest Mujoco version only grid, and cable are supported types</li> <li><b>count</b>: the size of the composite</li> <li><b>responsibleMask</b>: the composite responsible mask</li> <li><b>grow</b>: the amount the composite nodes should grow for visuals</li> <li><b>callback</b>: a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the composite code on-the-fly</li> </ul>
Lua return values	<b>injectionId</b> : the id of the injection
Python synopsis	<code>int injectionId=simMujoco.composite(string xml,dict info)</code>

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

## simMujoco.getFlexcompInfo

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

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simMujoco.getInfo
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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	<code>int injectionId=simMujoco.addInjection(map info)</code>
Lua arguments	<b>info</b> : information field containing: <ul style="list-style-type: none"> <li><b>shapeHandle</b>: the handle of the shape where the XML code should be injected. Can be empty if element is not empty</li> <li><b>element</b>: the name of the XML element where the XML code should be injected. Can be empty if shapeHandle is not empty</li> <li><b>xml</b>: the XML code to inject</li> <li><b>callback</b>: a callback function that is called when the MuJoCo world gets regenerated. This allows to adjust the xml code on-the-fly, if needed</li> </ul>

Lua return values	<b>injectionId</b> : 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	<b>injectionId</b> : the injection ID returned by simMujoco.addFlexcomp, simMujoco.composite, or simMujoco.addInjection
Lua return values	
Python synopsis	simMujoco.removeInjection(int injectionId)