# **Robot API**

http://127.0.0.1:8000/api

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## /robot

### **GET /robot**

Retrieves the list of all existing robots

GET /robot

## Response 200

Returns the list of robots

#### **Body**

## **POST /robot**

Creates a new robot given its name

POST /robot

#### **Body**

# Response 201

The robot was successfully created. Returns the description of the created robot

#### **Body**

# Response 400

Invalid request. The JSON arguments was invalid. The robot wasn't created.

## GET /robot/{robotId}

Retrieves the desciption of a robot

GET /robot/{robotId}

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

## Response 200

Returns the description of the robot

#### **Body**

## Response 404

If robotId is invalid

## PUT /robot/{robotId}

Sets the properperties of a robot. All empty fields are left as-if. At least one field must be filled.

PUT /robot/{robotId}

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

#### **Body**

## Response 202

Returns the new description of the robot

#### **Body**

## Response 400

Invalid request. The JSON arguments was invalid. The robot wasn't modified.

### Response 404

If robotId is invalid

# **DELETE** /robot/{robotId}

Deletes a robot

DELETE /robot/{robotId}

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

#### Response 204

The robot was successfuly deleted

### Response 404

If robotId is invalid

## **GET** /robot/{robotId}/joint

Lists all joints of a robot

GET /robot/{robotId}/joint

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

### Response 200

Returns the list of joints of the robot

#### **Body**

## Response 404

If robotId is invalid

## GET /robot/{robotId}/joint/{jointId}

Retrieves the description of a joint

GET /robot/{robotId}/joint/{jointId}

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

robotId: required (string)
 The robot unique Id

• **jointld**: required (string)
The joint unique Id

• **robotId**: required (string)
The robot unique Id

## Response 200

Returns the description of the joint

#### **Body**

#### Response 404

If robotld or jointld is invalid

## PUT /robot/{robotId}/joint/{jointId}

Sets the proper perties of a joint. All empty fields are left as-if. At least one field must be filled.

PUT /robot/{robotId}/joint/{jointId}

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **jointld**: required (string)
The joint unique Id

• **robotId**: required (string)
The robot unique Id

#### **Body**

#### Response 202

Returns the new description of the joint

#### **Body**

### Response 400

Invalid request. The JSON arguments was invalid. The joint wasn't modified.

#### Response 404

If robotld or jointld is invalid

## **GET** /robot/{robotId}/link

Lists all links of a robot

GET /robot/{robotId}/link

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

robotId: required (string)
 The robot unique Id

### Response 200

Returns the list of links of the robot

#### **Body**

#### Response 404

If robotld is invalid

## POST /robot/{robotId}/link

Creates a new link in the robot

POST /robot/{robotId}/link

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

#### Body

## Response 201

The link was successfully created. Returns the description of the created link

#### **Body**

## Response 400

Invalid request. The JSON arguments was invalid. The link wasn't created.

## Response 404

If robotId is invalid

## GET /robot/{robotId}/link/{linkId}

Retrieves the description of a link

GET /robot/{robotId}/link/{linkId}

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

robotId: required (string)
 The robot unique Id

#### Response 200

Returns the description of the link

#### **Body**

### Response 404

If robotld or linkld is invalid

## PUT /robot/{robotId}/link/{linkId}

Sets the properperties of a link. All empty fields are left as-if. At least one field must be filled.

PUT /robot/{robotId}/link/{linkId}

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkId**: required (string)
The link unique Id

• robotld: required (string)

The robot unique Id

#### **Body**

### Response 202

Returns the new description of the robot

#### **Body**

#### Response 400

Invalid request. The JSON arguments was invalid. The link wasn't modified.

### Response 404

If robotld or linkld is invalid

## DELETE /robot/{robotId}/link/{linkId}

Deletes a link

DELETE /robot/{robotId}/link/{linkId}

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

• **robotId**: required (string)
The robot unique Id

#### Response 204

The link was successfuly deleted

### Response 404

If robotld or linkld is invalid

## **GET** /robot/{robotId}/link/{linkId}/geometry

Lists all geometries of a link

GET /robot/{robotId}/link/{linkId}/geometry

#### **URI Parameters**

robotId: required (string)
 The robot unique Id

robotId: required (string)
 The robot unique Id

• **linkld**: required (string)
The link unique Id

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

#### Response 200

Returns the list of geometries of the link

#### **Body**

#### Response 404

If robotld or linkld is invalid

### POST /robot/{robotId}/link/{linkId}/geometry

Creates a new geometry in the link

POST /robot/{robotId}/link/{linkId}/geometry

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

• linkld: required (string)

The link unique Id

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

#### **Body**

#### Response 201

Returns the new description of the created geometry

#### **Body**

# Response 400

Invalid request. The JSON arguments was invalid. The geometry wasn't created.

### Response 404

If robotld or linkld is invalid

## GET /robot/{robotId}/link/{linkId}/geometry/{geometryId}

Retrieves the properties of a geometry

GET /robot/{robotId}/link/{linkId}/geometry/{geometryId}

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

- **linkld**: required (string)
  The link unique Id
- **geometryId**: required (string)

The link unique Id

robotId: required (string)
 The robot unique Id

• **linkId**: required (string)
The link unique Id

# Response 200

Returns the description of the geometry

#### **Body**

#### Response 404

If robotld, linkld or geometryld is invalid

# PUT /robot/{robotId}/link/{linkId}/geometry/{geometryId}

Sets the properperties of a geometry

PUT /robot/{robotId}/link/{linkId}/geometry/{geometryId}

#### **URI Parameters**

• **robotId**: required (string)
The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

robotId: required (string)
 The robot unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

geometryld: required (string)
 The link unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

#### **Body**

### Response 202

Returns the new description of the geometry

#### **Body**

### Response 400

Invalid request. The JSON arguments was invalid. The geometry wasn't modified.

#### Response 404

If robotld, linkld or geometryld is invalid

## DELETE /robot/{robotId}/link/{linkId}/geometry/{geometryId}

Deletes a geometry

DELETE /robot/{robotId}/link/{linkId}/geometry/{geometryId}

#### **URI Parameters**

- **robotId**: required (string)
  The robot unique Id
- **robotId**: required (string)
  The robot unique Id
- **linkld**: required (string)
  The link unique Id
- **robotId**: required (string)
  The robot unique Id
- **robotId**: required (string)
  The robot unique Id
- **linkld**: required (string)
  The link unique Id
- **geometryId**: required (string)

The link unique Id

• **robotId**: required (string)
The robot unique Id

• **linkld**: required (string)
The link unique Id

# Response 204

The geometry was successfuly deleted

# Response 404

If robotld, linkld or geometryld is invalid