

Robonaut 2 Legs Simulation Data for Public Release

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Robonaut 2 Legs Simulation

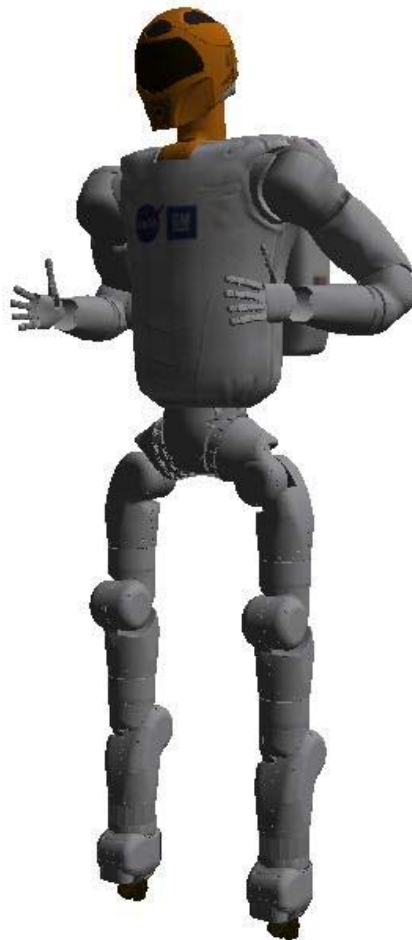
- The following data is part of a medium fidelity kinematic/dynamic simulation of Robonaut 2.
 - CAD Models
 - Kinematic Data
 - Mass and Inertia Data
 - Spring Data
- No internal component data is included

CAD Models

- The following graphics are pictures of the CAD models being released.
 - No internal components are shown
 - Only surface features are present

Medium Fidelity Sim Model

Legs, Grippers



- Upper body already approved for export

Simplified leg models as actually used in simulation



Kinematic and Dynamic Data

- The kinematic data (link offsets and joint descriptions) is needed to link the joints together in the simulation allowing correct motion of the limbs when receiving commands from a user program
- The dynamic data (mass and inertia) allows the simulator to emulate real world physics
- The data is in the embedded txt file below (double click to open)



R2 Legs Properties

Spring Data

- The R2 legs include springs in all of the joints. When this data is combined with the mass data, a low-medium fidelity approximation to the robots dynamics may be modeled.

Joint	Ft-lb/deg
0	120
1	100
2	100
3	100
4	100
5	100
6	100