

REEM-C[®]

TECHNICAL SPECIFICATIONS

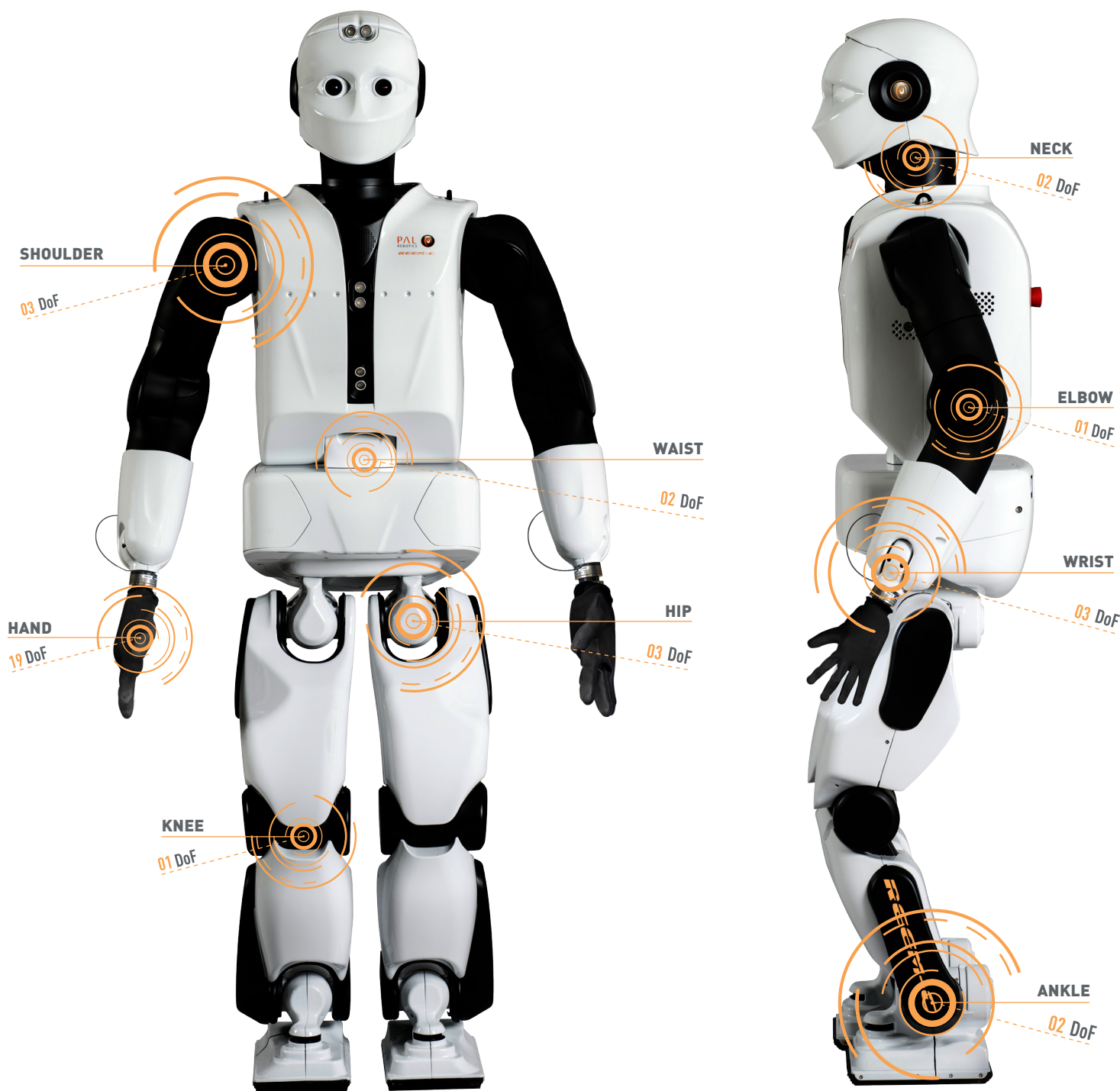
Simulation model available at:
wiki.ros.org/Robots/REEM-C

GENERAL FEATURES

Height 165 cm
Width 60 cm
Weight 80 Kg

68 DEGREES OF FREEDOM (DoF)

Legs 6 (x2) **Torso** 2
Arms 7 (x2) **Head** 2
Hands 19 DoF (3 actuators) (x2)



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PAYLOAD

Hand payload
Arms payload

1 Kg (arm stretched)
10 Kg (with both arms)

CONNECTIVITY

Wi-Fi
Ethernet

802.11 a/b/g/n 5 GHz and 2.4 GHz
1000 Base T

ELECTRICAL FEATURES

Power System
Nominal Energy
Battery Autonomy

Lithium-Ion Battery 48 V
1225 Wh
3h walking / 6h stand by

INTERFACES

Speakers
Microphones

x2 (5 watt)
x4 linear array

SENSORS

Force/Torque sensors
Sonars

6 axis F/T sensor x2 in ankles
x4 (Torso, Head) / 3-300 cm range

COMPUTERS

Intel Core i7

x2 (Multimedia and Control)

SOFTWARE

OS
Middleware
Applications

Ubuntu LTS, Real Time OS
ROS, OROCOS, ros_control, MoveIt!
Walking, Grasping, Face Recognition,
Speech Recognition

VISION

Sensor type
Resolution
Optics
Max. frame rate

Stereo Camera

CMOS global shutter 1/3"
1280 x 960
4.5 mm mount C lens
60 fps

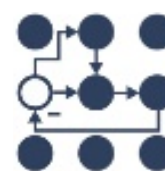
Back Camera

CMOS global shutter 1/3"
752 x 480
2.5 mm mount M12 lens
90 fps

OPTIONALS

Force/Torque sensors
Lasers
IMU

6 axis F/T sensor x2 in wrists
x2 (feet) 4m, 0.36°, 10 Hz
5 G acceleration / 450 deg/s



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