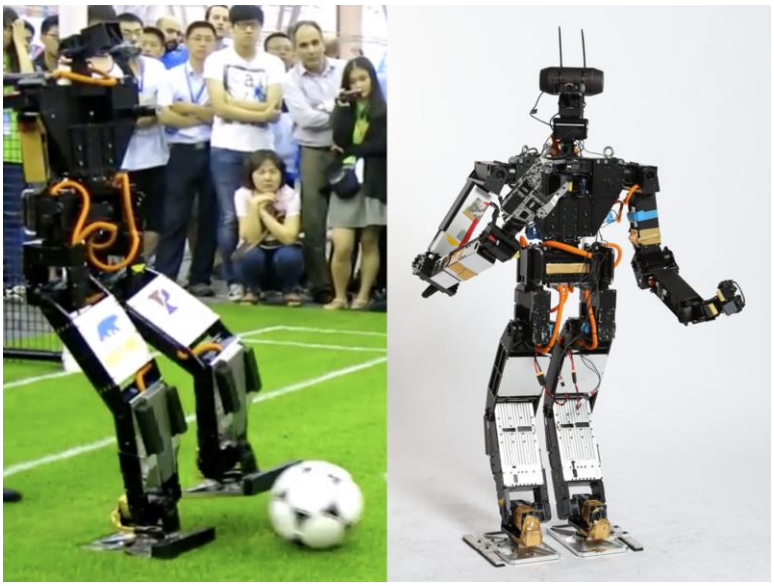
Team RoMeLa Robot Specification

Robot #1 Picture:



Robot #1 Name: THOR-RD (Tactical Hazardous Operations Robot-Rapid Deployment)

Height of the robot: 1.47 m

Weight of the robot: 49 kg

Walking speed in cm/s: 25 cm/s

Number of degrees of freedom and type of motors on each kinematic chain of the robot:
31 Degrees of Freedom
H42-20-S300-R: Head, Arms
H54-100-S500-R: Arms, Legs
H54-200-S500-R: Arms, Legs

Type of sensors used (incl. type of camera(s)):
IMU: MicroStrain 3DM-GX4-45
Vision: Logitech C920 HD Camera
Force/Torque Sensor at Ankle: ATI Mini58

Computing unit(s):
Gigabyte Brix Ultra Compact PC Intel i7-4500U

Other specs:
None

Robot #2 Picture:

CAD rendering shown as it is in its final manufacturing and assembly stage.

Robot #2 Name: ARTEMIS (Advanced Robotic Technology for Enhanced Mobility and Improved Stability)

Height of the robot: 1.5 m

Weight of the robot: 45 kg

Walking speed in cm/s: 50 cm/s

Number of degrees of freedom and type of motors on each kinematic chain of the robot:
19 Degrees of Freedom using Custom In-house Built Proprioceptive Actuators
x3 for Head
x3 per Arm (reduced for tournament purposes)
x5 per Leg

Type of sensors used (incl. type of camera(s)):
IMU: VectorNav VN-100
Vision: Intel RealSense D435 in passive stereo mode

Computing unit(s):
Intel NUC NUC8I7HVK Mini PC
NVIDIA Jetson

Other specs:
None