

# Hardware Specification – KHUBER Humanoid Robot

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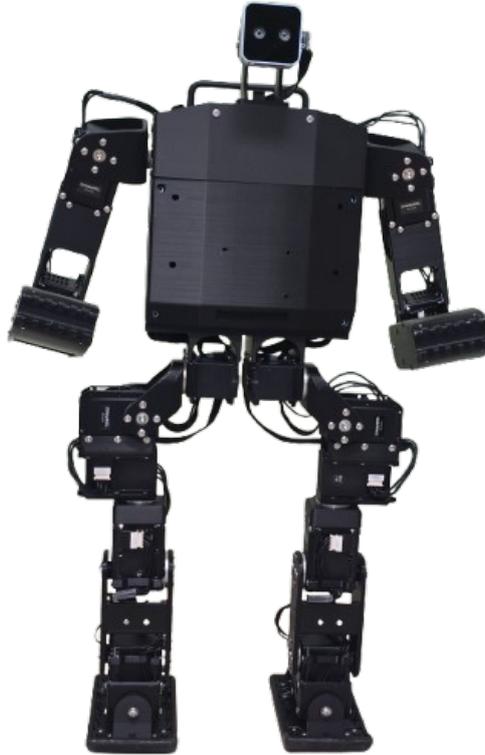


Figure 1: KHUBER humanoid robot (prototype / 3D model).

Table 1: KHUBER Humanoid Robot Hardware Specifications

Item	Specification
Robot name	KHUBER Humanoid (Small Robot Division)
Robot dimensions	Height: 600mm, Width: 280mm, Depth: 125mm
Weight	Approx. 5 kg (target < 15 kg)
Degrees of Freedom	Total: 18 DOF
Actuators	Dynamixel smart servo actuators (MX-64AR, RS-485) Input voltage: 10–14.8 V (nominal 12 V) Current: 0.15 A (no-load), 4.1 A (stall, @12 V)
Sensors	Stereo camera: Intel RealSense D405 IMU: STMicroelectronics LSM6DSV16X (6-axis IMU) Foot contact sensors: FSR pressure sensors (RA9P)
Computing units	Main computer: NVIDIA Jetson Orin NX 16GB
Materials	3D-printed PLA structural components
Electronics	Custom STM32-based control board ROBOTIS U2D2 interface
Battery	Lithium-ion battery pack (Molicel INR-21700-P42A) Configuration: 3S2P (nominal 11.1 V)