

# Bold Hearts

## Robot Specification for RoboCup 2024



Table 1. Robot Specification

Component	Details
Robot name	<b>BoldBot</b>
Height	61.5 cm
Weight	3.05 kg
Walking speed	$3 \text{ cm s}^{-1}$
DoF	20 (MX-64T motors <sup>1</sup> for the knee servos and MX-28T <sup>2</sup> for the others)
Sensors	IMU: 3-axis gyroscope (LYPR540AH) and 3-axis accelerometer (ADXL335) Camera and microphone: Logitech C920 <sup>3</sup> Pro HD Webcam Other: supply voltage sensors, motor/joint angle sensors
Computing units	CPU: Odroid XU4 <sup>4</sup> Sub-controller: Cortex-M3 @ 72 MHz subcontroller on CM730 <sup>5</sup>
Materials	Custom aluminium chassis with 3D printed limbs (PLA)
Batteries	3SIP 1200mAh LiPo
Open Source link	<a href="https://gitlab.com/boldhearts">https://gitlab.com/boldhearts</a>