Bold Hearts Robot Specification RoboCup 2026

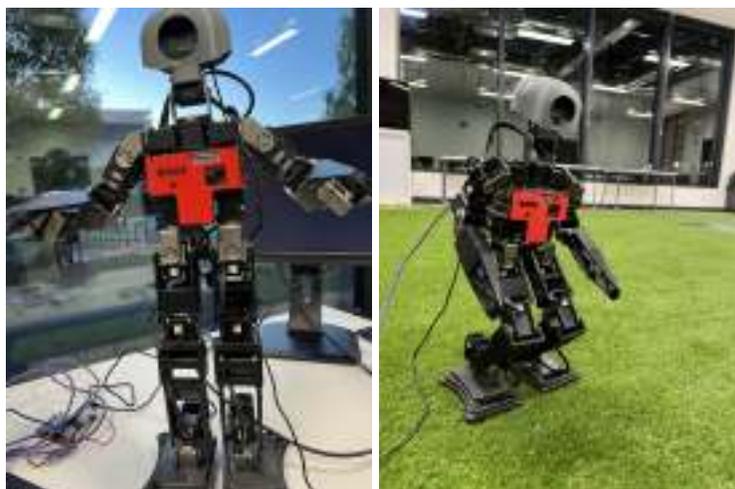

Figure 1: The BoldKnight platform.

Table 1: Robot Specification

Component	Details
Robot name	**BoldKnight**
Height	80cm
Weight	5kg
Walking speed	4cm/s
DoF	Head: 2x MX28T[1]
	Arms: 2x MX28T, 4x MX64T[2]
	Legs: 6x MX28T, 2x MX64T, 4x MX106T[3]
Sensors	IMU: BMI088[4]
	Camera: Luxonis OAK D Lite[5]
Computing units	CPU: Radxa X4
	Sub-controller: Custom
Materials	Custom aluminium chassis with 3D printed limbs (PLA)
Batteries	3SIP 1200mAh LiPo
Open Source link	https://gitlab.com/boldhearts

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[1] https://emanual.robotis.com/docs/en/dxl/mx/mx-28/

[2] https://emanual.robotis.com/docs/en/dxl/mx/mx-64/

[3] https://emanual.robotis.com/docs/en/dxl/mx/mx-106/

[4] https://www.bosch-sensortec.com/products/motion-sensors/imus/bmi088/

[5] https://shop.luxonis.com/products/oak-d-lite-1?variant=42583102456031