

# Bold Hearts

## Robot Specification for RoboCup 2020



<b>Robot name</b>	BoldBot
<b>Height</b>	61.5 cm
<b>Weight</b>	3.05 kg
<b>Walking speed</b>	$5 \text{ cm s}^{-1}$
<b>DoF</b>	20 (MX-64T <sup>1</sup> for the knees' servos and MX-28T <sup>2</sup> for the others)
<b>Sub-controller</b>	CM-730 <sup>3</sup>
<b>CPU</b>	Cortex-M3 @ 72 MHz Odroid-XU4 <sup>4</sup> Exynos5422 @ $8 \times 2 \text{ GHz}$ , 2 GB RAM
<b>Camera</b>	Logitech C920 <sup>5</sup> Pro HD Webcam
<b>Sensors</b>	IMU (with 3-axis gyroscope and 3-axis accelerometer), supply voltage sensors, motor/joint angle sensors

<sup>1</sup> [http://support.robotis.com/en/product/actuator/dynamixel/mx\\_series/mx-64at.ar.htm](http://support.robotis.com/en/product/actuator/dynamixel/mx_series/mx-64at.ar.htm)

<sup>2</sup> [http://support.robotis.com/en/product/actuator/dynamixel/mx\\_series/mx-28at.ar.htm](http://support.robotis.com/en/product/actuator/dynamixel/mx_series/mx-28at.ar.htm)

<sup>3</sup> [http://support.robotis.com/en/product/darwin-op/references/reference/hardware\\_specifications/electronics/sub\\_controller\\_\(cm-730\).htm](http://support.robotis.com/en/product/darwin-op/references/reference/hardware_specifications/electronics/sub_controller_(cm-730).htm)

<sup>4</sup> <https://magazine.odroid.com/wp-content/uploads/odroid-xu4-user-manual.pdf>

<sup>5</sup> <https://www.logitech.com/product/hd-pro-webcam-c920#specification-tabular>