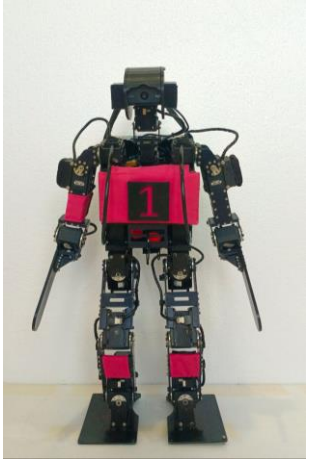
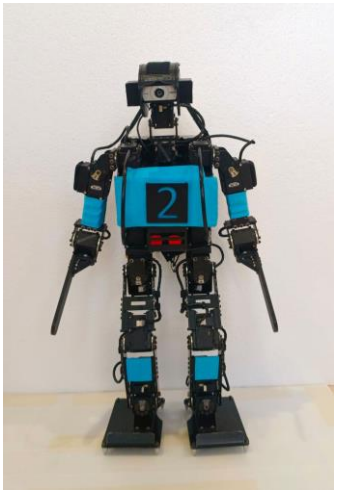
# Barelang FC Robot Specification

## Barelang FC 1



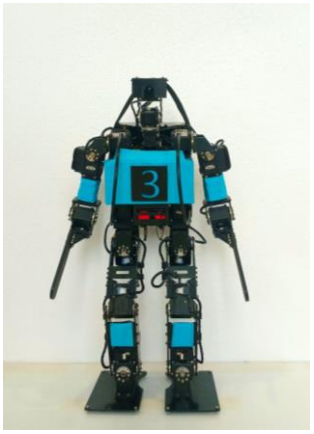

| | | |
|---|---|---|
| Dimension | Height | 690 mm |
| | Foot | 100 mm x 160 mm |
| | Leg | 370 mm |
| | Arm | 320 mm |
| | Weight | 6,766 kg |
| 20 DoF | Head | 2 Dynamixel MX 28 |
| | Hip | 2 Dynamixel MX 64 |
| | Arm | 3x2 Dynamixel MX 64 |
| | Leg | 5x2 Dynamixel MX 106 |
| Motion | Walking Speed | 0.34 m/s |
| Sensor | Camera | Webcam Logitech C920 |
| | IMU | BNO055 (Magnetometer not used) |
| Computing Unit | Main-Controller | NVIDIA Jetson Xavier NX |
| Materials | Head | Black Delrin |
| | Arm | Aluminum 6061, Black Delrin, and Filament TPU |
| | Hip | Aluminum 6061, Black Delrin and Filament PLA+ |
| | Leg | Aluminum 6061 and Black Delrin |
| Electronics | Sub-Controller | OpenCR |
| | Jetson Shield | Shield for directly connect BNO055 to Jetson GPIO |
| Operating System | Ubuntu 20.04 | |
| Battery | LiPo Battery 4 cell 2200 mAh | |

**Barelang FC 2**



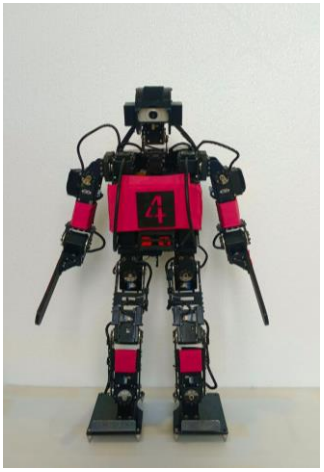

| | | |
|---|---|---|
| Dimension | Height | 695 mm |
| | Foot | 100 mm x 160 mm |
| | Leg | 380 mm |
| | Arm | 320 mm |
| | Weight | 6,484 kg |
| 20 DoF | Head | 2 Dynamixel MX 28 |
| | Hip | 2 Dynamixel MX 64 |
| | Arm | 3x2 Dynamixel MX 64 |
| | Leg | 5x2 Dynamixel MX 106 |
| Motion | Walking Speed | 0.34m/s |
| Sensor | Camera | Webcam Logitech C920 |
| | IMU | BNO055 (Magnetometer not used) |
| Computing Unit | Main-Controller | NVIDIA Jetson Xavier NX |
| Materials | Head | Black Delrin |
| | Arm | Aluminum 6061, Black Delrin, and Filament TPU |
| | Hip | Aluminum 6061, Black Delrin and Filament PLA+ |
| | Leg | Aluminum 6061 and Black Delrin |
| Electronics | Sub-Controller | OpenCR |
| | Jetson Shield | Shield for directly connect BNO055 to Jetson GPIO |
| Operating System | Ubuntu 20.04 | |
| Battery | LiPo Battery 4 cell 2200 mAh | |

**Barelang FC 3**




| | | |
|---|---|---|
| Dimension | Height | 695mm |
| | Foot | 100 mm x 160 mm |
| | Leg | 380 mm |
| | Arm | 320 mm |
| | Weight | 6,484 kg |
| 20 DoF | Head | 2 Dynamixel MX 28 |
| | Hip | 2 Dynamixel MX 64 |
| | Arm | 3x2 Dynamixel MX 64 |
| | Leg | 5x2 Dynamixel MX 106 |
| Motion | Walking Speed | 0.34m/s |
| Sensor | Camera | See3CAM_20CUG |
| | IMU | BNO055 (Magnetometer not used) |
| Computing Unit | Main-Controller | NVIDIA Jetson Xavier NX |
| Materials | Head | Black Delrin |
| | Arm | Aluminum 6061, Black Delrin, and Filament TPU |
| | Hip | Aluminum 6061, Black Delrin and Filament PLA+ |
| | Leg | Aluminum 6061 and Black Delrin |
| Electronics | Sub-Controller | OpenCR |
| | Jetson Shield | Shield for directly connect BNO055 to Jetson GPIO |
| Operating System | Ubuntu 20.04 | |
| Battery | LiPo Battery 4 cell 2200 mAh | |

**Barelang FC 4**




| | | |
|---|---|---|
| Dimension | Height | 690 mm |
| | Foot | 100 mm x 160 mm |
| | Leg | 370 mm |
| | Arm | 320 mm |
| | Weight | 6,523 kg |
| 20 DoF | Head | 2 Dynamixel MX 28 |
| | Hip | 2 Dynamixel MX 64 |
| | Arm | 3x2 Dynamixel MX 64 |
| | Leg | 5x2 Dynamixel MX 106 |
| Motion | Walking Speed | 0.34m/s |
| Sensor | Camera | Webcam Logitech C920 |
| | IMU | BNO055 (Magnetometer not used) |
| Computing Unit | Main-Controller | NVIDIA Jetson Xavier NX |
| Materials | Head | Black Delrin |
| | Arm | Aluminum 6061, Black Delrin, and Filament TPU |
| | Hip | Aluminum 6061, Black Delrin and Filament PLA+ |
| | Leg | Aluminum 6061 and Black Delrin |
| Electronics | Sub-Controller | OpenCR |
| | Jetson Shield | Shield for directly connect BNO055 to Jetson GPIO |
| Operating System | Ubuntu 20.04 | |
| Battery | LiPo Battery 4 cell 2200 mAh | |