# AGIBOT X2 Humanoid Robot – Technical Specification Sheet

| Category | Specification | X2 | X2 Ultra |
|---|---|---|---|
| **Basic Information** | Material | Aluminum alloy + Magnesium alloy + High-strength engineering plastic + Foamed PU | |
| | Standing Dimensions (L × W × H) | 1310 × 460 × 210 mm (±30 mm) | |
| | Package Dimensions (L × W × H) | 945 × 705 × 475 mm | |
| | Net Weight (with battery & end effector) | Approx. 35 kg | Approx. 39 kg |
| | Gross Weight (package) | Approx. 63.5 kg | Approx. 67.5 kg |
| | Typical Power Consumption | Approx. 240 W | |
| | Operating Temperature | −10 °C to 40 °C | |
| | Battery Capacity | Approx. 500 Wh | |
| | Endurance | Approx. 2 h | |
| | Charging Time | Approx. 1.5 h | |
| **Performance Parameters** | Walking / Running Speed | Running ≤ 1.8 m/s | |
| | Max Payload | 3 kg (EU weight not included) | |
| | End Effector Support | Artificial Hand | Artificial Hand<br>OmniPicker<br>OmniHand |
| | Max Step Crossing Height | 50 mm | |
| | Obstacle Clearance | 50 mm | |
| | Climbing Capacity | ±10° | |
| | Minimum Turning Width | 900 mm | |
| **Joint Parameters** | Active DOF | 25 | 30 |
| | DOF Distribution | Arm: 5<br>Waist: 3<br>Leg: 6 | Head: 1<br>Arm: 7<br>Waist: 3<br>Leg: 6 |
| | Max Joint Torque | 120 N·m | 120 N·m |
| **Sensors** | Visual Sensors | Interactive RGB Camera ×1 | Interactive RGB Camera ×1<br>Stereo RGB Camera ×1<br>RGBD Camera ×1<br>3D LiDAR ×1<br>Rear RGB Camera ×1 |
| | Motion Sensor | 6-axis IMU ×1 | |
| **Function List** | Basic Computing Unit | RK3588s ×1 & RK3588 ×1 | |
| | Development Computing Unit | N/A | Orin NX 16 GB |
| | Control Methods | Remote Control<br>App Control (AGIBOT Go)<br>Voice Control | |
| | Built-in Actions | ≥ 20 | |
| | Debug Ports | USB Type-C ×1<br>USB Type-A ×1 | USB Type-C ×2<br>USB Type-A ×2<br>RJ45 ×2 |
| | Power Interface | 12V / 3A ×1 & 48V / 5A ×1 | 12V / 3A ×1 & 48V / 5A ×1 |
| **Accessories** | Package Contents | · Robot Unit x1<br>· Quick Start Guide x1<br>· Battery & Charger x1<br>· Certificate of Conformity x1 | |
| **Warranty** | Warranty Period | 8 months | 1.5 years |

**Notes:**

1. Measured when the robot is standing in force-control standing mode;
2. At -10 °C, the robot will experience performance and endurance degradation;
3. The battery capacity is a typical value, and there are differences between different robot unit;
4. Obtained through low-speed walking test in the normal temperature and pressure environment of AGIBOT Laboratory;
5. The time it takes to charge from 15% battery to 100% in the normal temperature and pressure environment of AGIBOT Laboratory;
6. Measured in a specific posture under normal temperature and pressure environment in the AGIBOT Laboratory;
7. Control Priority: Remote Control > App > Voice;





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