seeed studio

INDUSTRIAL PRODUCT DATASHEET

SO-101 Servo Motor Kit – LeRobot Compatible 6DOF Robotic Arm

SO-101 Servo Motor Kit – LeRobot Compatible 6DOF Robotic Arm: affordable, open-source, 6-DOF arm with 30 kg·cm torque servos for imitation learning and teleoperation.

SKU	UPDATED	PRICE
114993667	2026-11-09 06:07:54	$249.90(Excl. VAT)



Overview



The SO-101 Servo Motor Kit is a LeRobot-compatible 6DOF robotic arm featuring six STS3215 magnetic-encoder bus servos with 30 kg·cm torque per joint and 12-bit absolute position feedback. It offers fully open-source hardware and software, flexible kit options, and native Hugging Face LeRobot support for imitation learning, leader-follower teleoperation, and reinforcement learning workflows.

Key Features

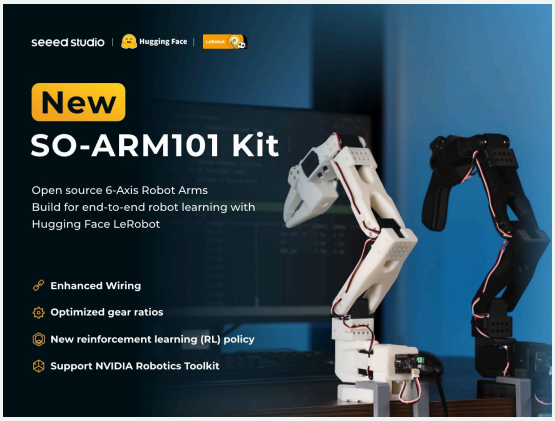
01 **6 Degree-of- Freedom(DOF) Arm — Six STS3215 magnetic-encoder bus servos deliver 30 kg·cm torque per joint with 12-bit absolute position feedback for smooth, quiet, and repeatable motion**

02 **Hugging Face LeRobot Native Support — Works out of the box with the LeRobot framework for imitation learning; collect teleoperation data and train ACT/Diffusion models with community-shared pipelines.**

03 **Affordable & Flexible Kit Options — Low-cost 3D-printable robotic arm with flexible kit options. Select full-assembly, servo-only pack or unassembled parts to match your budget and project needs.**

04 **Fully Open-Source — All hardware designs, BOM, firmware, and software are publicly available; modify, extend, and share freely**

Product Gallery

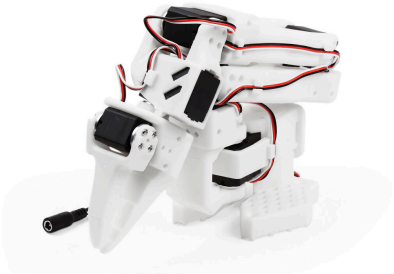


Package Option	Pre-assembled	Servo Motors	Servo Control Board	3D-Printed Body Parts	Wrist Camera Bracket	USB Camera	Teleoperation	Imitation Learning
 Servo Motor Kit	-	✓	✓	-	-	-	✓	-
 Unassembled Bundle	-	✓	✓	✓	✓	-	✓	-
 Assembled Arm	✓	✓	✓	✓	✓	✓	✓	✓

Note: Servo Motor Kit + 3D Printed Parts = Unassembled Bundle



* This is the motor kit only. 3D printed parts are sold separately and must be purchased separately.



* This is the motor kit only. 3D printed parts are sold separately and must be purchased separately.

Hardware Overview



Applications

- **Leader-Follower Teleoperation:** Collect robot demonstration data easily via leader-follower teleoperation, ready for imitation-learning model training.
- **Imitation Learning & Reinforcement Learning:** Teach your robot household-style skills like folding clothes with human demos. Gather data via leader-follower teleoperation, train imitation-learning policies on LeRobot, and watch your robot reproduce tricky real-world manipulation tasks. SO-ARM101 works seamlessly with LeRobot for data collection, simulation, training, and deployment. Train and deploy custom grasp-and-place policies quickly on NVIDIA Jetson edge devices. Explore the tutorial: LeRobot on NVIDIA Jetson AI Lab (https://www.jetson-ai-lab.com/archive/lerobot.html)
- **Community Inspiration:** Follow Nikodem Bartnik's hands-on SO-ARM101 workflow: hardware assembly, servo control, custom policy training and real-time block-picking inference. Walk through key steps, fix typical issues and explore the open-source arm's potential. Our monthly project call is now open! Share your project demos for a chance to win prizes and discount coupons.
- **Quick Start Developer Resources:** Jumpstart your project with official tutorials, open-source repositories, and community support: Start building your first Physical AI Project in 30 mins with SenseCraft; Step-by-Step Guide: SO-ARM 101 Quick Start (https://wiki.seeedstudio.com/lerobot_so100m_new/); Open-Source Code: Access PyTorch models, simulation tools, and datasets on the Hugging Face LeRobot GitHub Repository (https://github.com/huggingface/lerobot?tab=readme-ov-file); Community & Support: Join discussions, share models, and get real-time help on the Seeed Discord Channel (https://discord.gg/8TnwDdjFGU) & FaceBook (https://www.facebook.com/share/g/17rksDbg1k/). Join our Facebook Group to claim exclusive coupons worth up to $100 USD.

Resource Links

- https://www.seeedstudio.com/SO-101-Low-Cost-AI-Arm-Kit-Pro-p-6427.html
- STS3215 Servo Motor Datasheet
- Fine-tune 3D printed parts files
- Purchase after March 03 2025, please see: Servo Adaptor Board for Seeed Studio XIAO Datasheet
- Purchase before March 03 2025, please see: Serial Bus Servo Drive Board
- If you are using reComputer J301, visit
- If you are using reComputer J401, visit datasheet

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com