Quanser QArm Research

ResearchArm is a precision 6-axis robotic arm designed for advanced research and education in robotics and mechatronics. Its open architecture, high accuracy and repeatability, and NVIDIA-based platform enable projects in control systems, perception-based manipulation, imitation learning, reinforcement learning, and the implementation of artificial intelligence models.

ResearchArm – Key Specifications	
Mechanical System	
Degrees of Freedom	6 DOF robotic serial manipulator (J1 Yaw | J2–J4 Pitch | J5 Yaw | J6 Roll)
Payload	3 kg
Reach	580 mm
Weight	13.5 kg
Repeatability	±0.05 mm
Joint Precision	0.088°
Joint Range	J1, J2, J4, J5, J6: ±360°; J3: ±150°
Actuators	J1, J2: YM080-230-A099-RH; J3–J6: YM070-210-A099-RH
Perception & End-Effector	
Camera	Intel RealSense D405
End-effector	RH-P12-RN robotic hand
End-effector Expansion	24V tool power, RS485, digital I/O, analog input
Computing & Interface	
Host Interface	Ethernet
Compute Platform	QBrain – NVIDIA AGX Orin computer
Software & Simulation	

ResearchArm – Key Specifications	
Software Support	MATLAB/Simulink, Python, ROS 2, C++
Simulation Support	NVIDIA Isaac Sim | NVIDIA Isaac Lab
Digital Twin Support	Quanser Interactive Labs
Notes	
***Specifications are subject to change without notice**	