

ANGK

Educational Robot Arm Catalogue

Sahi Rasa

**pioneer in equipping
educational laboratories and
universities**

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Educational 5R Robot Arm (Training Class)



**Open and Real-World Robotics,
Scaled for Learning** A professional-
grade articulated robot arm designed
for hands-on training in automation,
mechatronics, and robotics
engineering

PT-600 — Compact 5-Axis Articulated Robot

ANGK

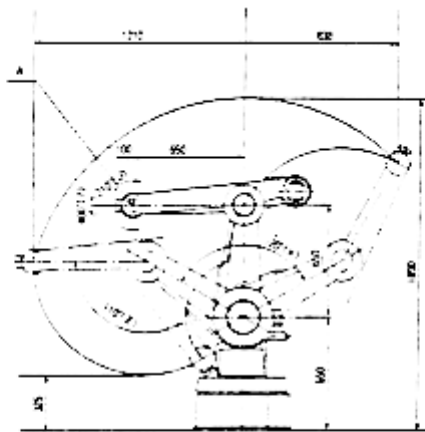
Applications: Arc welding, assembly, material handling **Weight:** 360 kg **Degrees of Freedom:** 5 **Max Load Capacity:** 12 kg **Repeatability:** ± 0.1 mm **Motion & Speed:**

- **Base traverse:** $\pm 150^\circ$ at $90^\circ/\text{sec}$
- **Arm swing:** $\pm 105^\circ$ at $90^\circ/\text{sec}$
- **Wrist revolution:** $\pm 200^\circ$ at $180^\circ/\text{sec}$
- **Teaching & Control:**
- Playback robot with direct teaching via teaching box
- Microcomputer control with CP and interpolating functions
- 1000-step memory (expandable to 3000) **Power:** AC 200/229 V, 50/60 Hz, 2.0 kVA
- **Special Features:**
- Optimized axis range for wide work coverage
- Compact enough for ceiling or inverted installation
- High-precision positioning even at high speed
- Particularly suited for complex welding task.
- **5-axis motion** powered by Japanese servo brush motors with encoders and clutch for precise control
- **American AMC PWM servo drivers** paired with German PLC and I/O cards for cross-platform integration

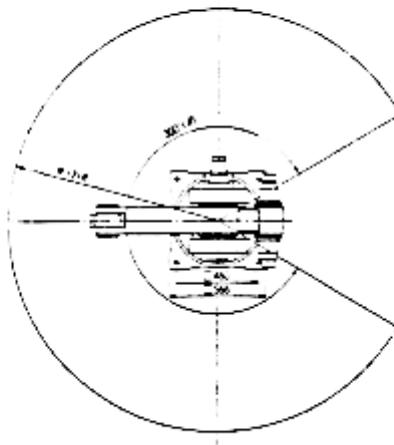
- Pneumatic end-effector gripper, compensating jack, **300 L air compressor with E-vacuum motor**
- Open-source HMI and PLC controller for total programming freedom
- **Repeatability of 0.1 mm** with a load capacity of 12–20 kg and motion speed up to 180°/sec
- Complete with all PLC source code, electrical wiring diagrams, control board schematics, and a **Denavit–Hartenberg guide** for inverse kinematics and mechanical design equations

 *Built for technical universities and advanced vocational centers to teach real industrial workflows—without compromise.*

(plan)



(side view)





Includes all the equipment for
non-stop training
Open Sourced
By ANGK





Available in Blue, White, Yellow

• Degrees of freedom: 6 degrees • Operating Capacity : 42 Kg • Controller : PLC • Repeatability Accuracy : 0.1 MM • Position Measurement System : Absolute Encoder • Robot Classification : Repetitive Robots • Motion Classification : Strapping robots • Actuator : Servo DC Brush • Gearbox Series : Harmonic Gearbox • Workspace Final End Effector: 105°/s • Workspace of The Joints of the period: 150°/s	• Speed of Rotation Of The Joints: 90°/s • Device speed: 180 °/s • Power Input: AC 220 Volt - 50 / 60Hz • 2.0KVA-6.0KG / CMG • Producer Country / Year of Construction: 2018 • Iran -Kurdistan- Engineering Company of Knowledge Engineering of Aviate Novin Gostar Kurdistan • Model: Robotic Arm 6 Degree Freedom IR-6R-97 • End Effector type: adjustable • Application: painting-welding-displacement-tracing • Work Area of joints: 80°c • Weight of the Machine: 360 Kg
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