

## Inherently Safe

Unique feature of P-Rob 3 is full surface coverage with padded soft artificial leather material. Combined with collision detection algorithms it makes P-Rob 3 a great choice for human-robot interaction tasks and other collision-critical applications.

## Multiple Programming Interfaces

P-Rob 3 can be controlled using a number of interfaces to make sure you get up and running in no time. Our in-house developed myP software provides a great GUI and Python-based scripting environment. ROS and TCP-based interface gives a full flexibility and easy integration with your other software packages, while keeping full functionality of P-Rob 3.

## Research Oriented

F&P Robotics AG has a large focus on research and development with constant collaboration with research institutions and participation in EU projects. We closely follow and test the latest research developments, which allows us to adapt our robots to be compatible with the latest advances and frameworks, for example in artificial intelligence and deep learning.

## Ready for Prototyping

Do you need custom gripper fingers, new sensors or different camera? Get your 3D printer ready and create your ideal gripper configuration! P-Rob 3 has internal ethernet and power cables passed to the end effector to allow you to attach custom devices without worrying about attaching cables on the outside of the robot. Gripper fingers are interchangeable with just one screw and have data pins. End effectors can be interchanged in seconds!

## Swiss Company, International Talents



F&P Robotics AG is a Swiss company headquartered in Zurich, Switzerland and leverages very strong professional and academic worldwide network. The company combines experienced high-tech and robotics professionals with a young team of international talents. Together we strive for continuous product innovations that create unique value for our customers.



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### TECHNICAL SPECIFICATIONS

 **P-Rob 3™**

6-axis collaborative and  
lightweight robot arm

# Technical Specifications

	P-Rob 3 – 24 V	P-Rob 3 – 48 V
Maximal Joint Velocities	50°/s to 100°/s	100°/s to 160°/s
Joint Ranges	±110° to ±170°	
Position Repeatability	±0.1 mm	
Weight	20 kg	
Payload	3 – 5 kg	
Footprint	290 mm – 250 mm	
Mounting Position	Floor, table, wall, ceiling, linear axis, mobile platform	
Height	1137.5 mm	
Reach	775 mm	
Degrees of Freedom	6	
Power Input		
AC	100 – 240 V, ~10 A max., 50/60 Hz	
DC	24 – 28 VDC, 12.5 A	48 VDC, 12.5 A
Power Consumption	Less than 80 W	Less than 100 W
Connectivity to Base		
Ethernet	2 x Gigabit Ethernet RJ45 (Wifi upon request) 1 x Feed through Cat5 cable to end tool (alternatively used as 8 user signal lines 0 – 48 V, 1 A max.)	
I/O	8 x digital inputs 10 – 36 V 8 x digital outputs 10 – 36 V (2 x 2 A, 6 x 250 mA)	
USB	2 x USB 2.0 2 x USB 3.0	
Connectivity to End Tool		
Ethernet	1 x Feed through Cat5 cable from robot base (alternatively used as 8 user signal lines 0 – 48 V, 1 A max.)	
IP Classification	IP40 (IP54 or higher with protective cover upon request)	
Color Combinations	Standard: White Smoke – Steel blue, Black – White Smoke, White Smoke – Dark Orange, Dark Blue – Light Grey  Custom: available upon request with 100+ color and pattern propositions	
P-Rob External Drive	Connectivity to combine P-Rob 3 with a linear axis or a mobile platform upon request	



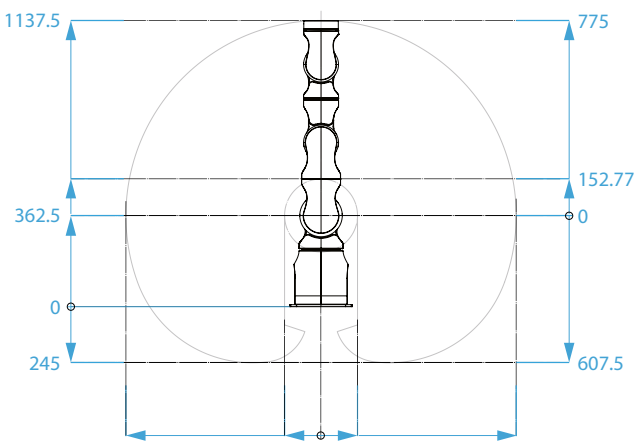
# Product Overview

- Interactive Ring**  
Customizable, multifunction buttons for easy using
- Fast Calibration**  
<1.5 seconds calibration procedure with pseudo-absolute encoders
- Connectivity**  
Embedded Linux PC, Ethernet 2x gigabit RJ45, Cat5, WiFi ready, IO 8x in/out, 4x USB
- Operation**  
90°/180° degree mounting, linear axis
- Quick Release Mounts**  
For exchangeable grippers and other front end devices
- Inherently Safe**  
24V (48V), 6 axis Robotic Arm with non-conductive Soft Skin out of artificial leather, 24 alternative color matches, electronic safety circuits
- Made for Human-Robot Interaction**  
Lightweight 20 kg, 3-5 kg payload, easy mounting, limited forces, collision detection, torque control, operate with no safety guarding

## Interactive Ring

- Release**  
Short click: toggle between release and hold  
Long click: release for as long as clicked
- Tool**  
Short click: toggle between open and close  
Long click: slowly opening/closing
- Teach**  
Short click: save the current pose  
Long click: record a path
- Reserved for F&P Robotics**

## Working Range



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- 4 Customizable Buttons