

Pick-it M-HD Camera Field of view

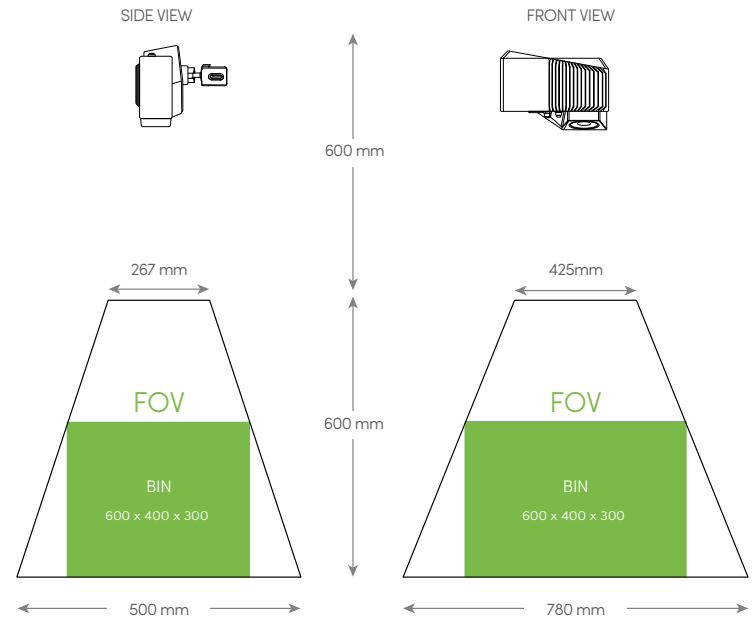
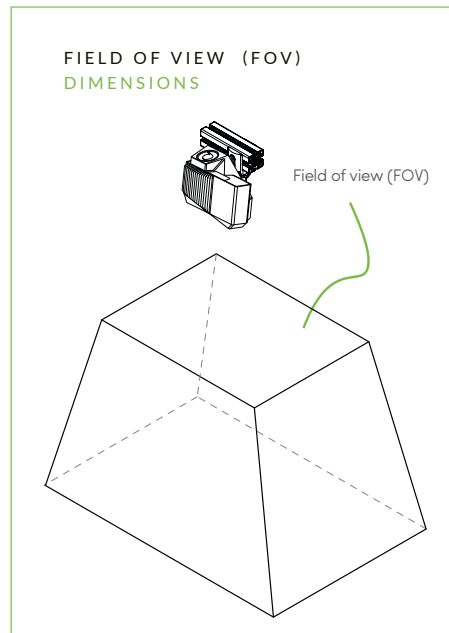
To be visible for Pick-it, all parts or items of interest must be inside the **field of view** (FOV) of the 3D camera.

The **region of interest** (ROI) can be seen as a 'bounding box' that fits within the FOV of the 3D camera. This box defines where the actual application takes place. You can define this ROI in the Pick-it software.

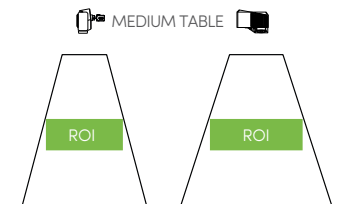
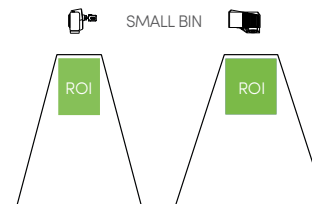
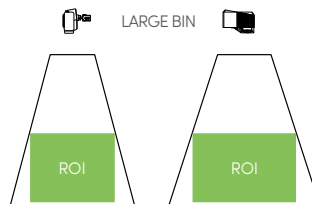
The possible dimensions of the ROI depend of the distance between the 3D camera and your ROI.

Bringing your application closer to the camera will improve image quality and shrink the potential ROI volume.

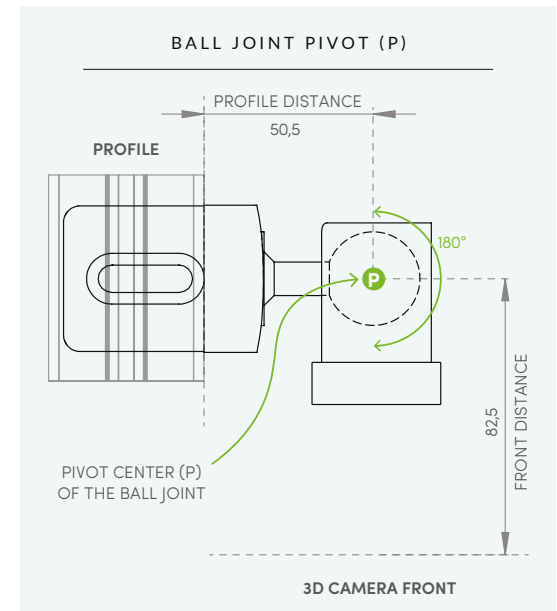
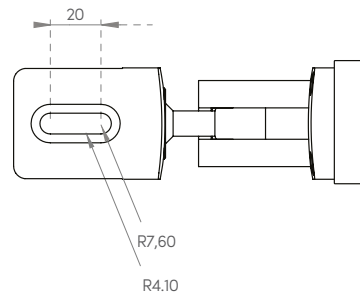
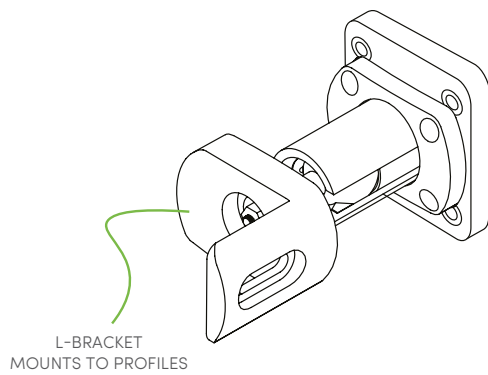
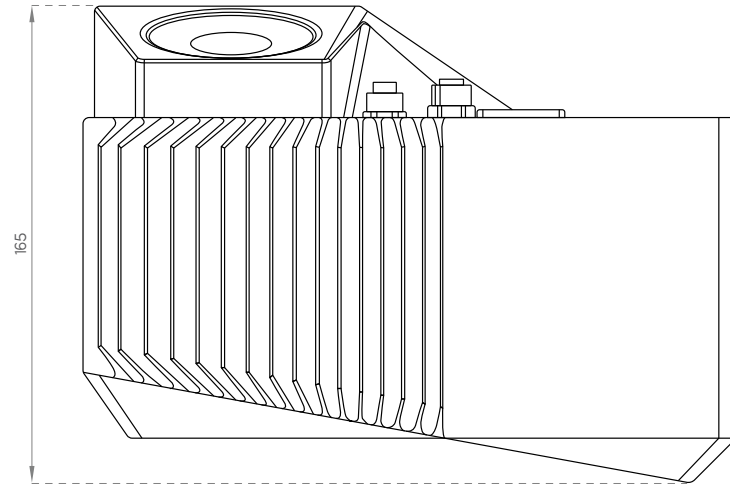
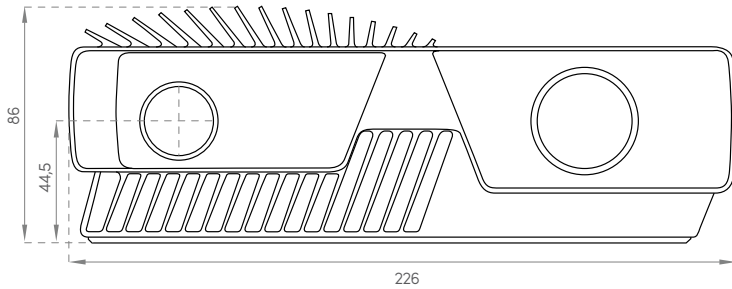
Bringing your application further from the camera will lower image quality and enlarge the potential ROI volume.



REGION OF INTEREST (ROI)
EXAMPLE APPLICATIONS



Pick-it Camera Dimensions



All dimensions in mm

Pick-it Facts



CAMERA TECHNICAL SPECIFICATIONS

3D measurement method	Structured light
Image processing speed	≥10 Hz (100ms snapshots)
3D Camera accuracy	0.1mm
3D Camera repeatability	< 1mm
3D camera weight	2 kg
3D camera connection to PC	M12-8 (USB) - USB3
PC connection to robot	TCP/IP over Ethernet
Power supply	M12-5 24VDC
Temperature	10°C to 40°C
IP rating	IP65
Vibrations	5G Sinus, 25G Shock
Conforms to	CE, CB, EN6950, FCC class A

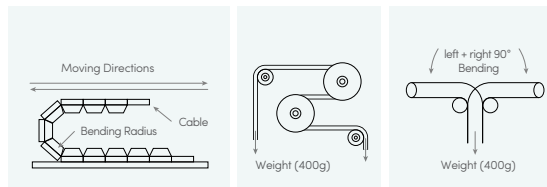
CAMERA CABLE TECHNICAL SPECIFICATIONS

5m

Industrial M12 camera connector

High-Flex / Continuous-Flex

- Type-U (R= 67,5mm - 5.000.000 times)
- Type-S (R= 60mm - 1.000.000 times)
- 90° Tick-Tock bending (R= 60mm - 1.000.000 times)



PROCESSOR

Power consumption

- While turned off: 25W
- Booting: 115W
- Idle: 70W
- Heavy processing: 160W

Technical specifications

- Processor: 6 cores (12 threads) at 3.7 Ghz
- 19 inch server: rack compatible (2U)
- Temperature: -20°C to 70°C
- Vibrations: Operating, 5 Grms, 5-500 Hz, 3 axes
- IP rating: IP54
- Power supply: 9-32V DC 160W
- Humidity: -95% @ 40°C (non-condensing)

WORKS WITH YOUR ROBOT

FANUC

STÄUBLI

KUKA

YASKAWA

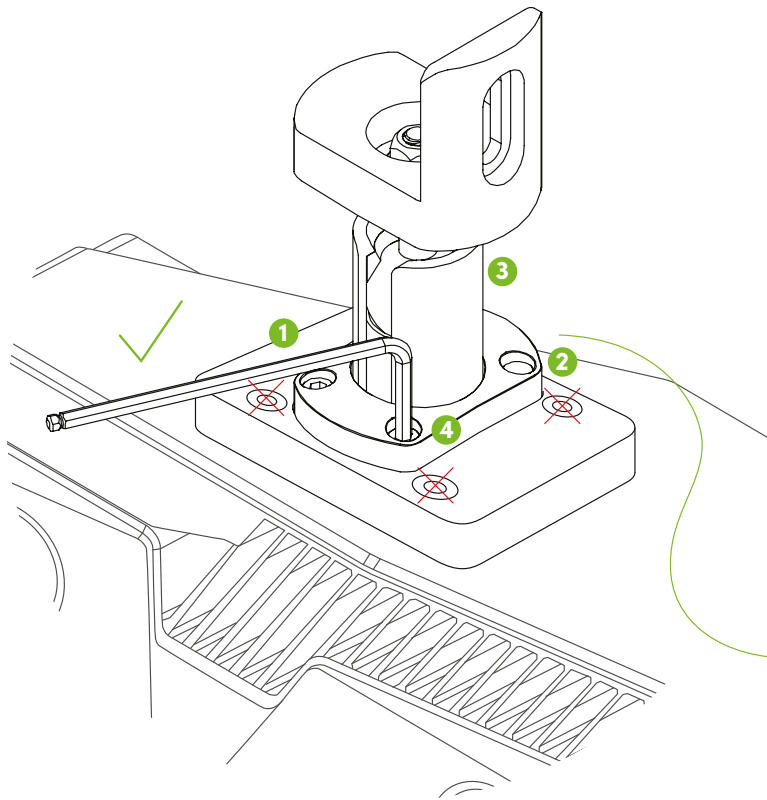
ABB

UNIVERSAL ROBOTS

FRANKA EMIKA

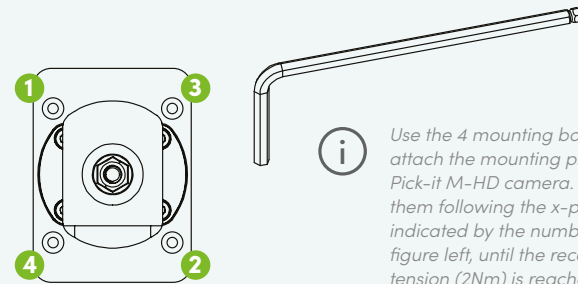
AUBO ROBOTICS

Ball Joint Tension



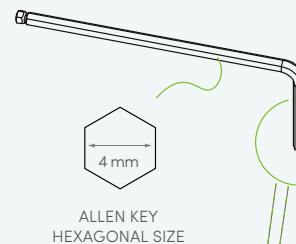
Adjust the 4 tensioning bolts as indicated at the right to alter the ball joint tightness and obtain a fixed joint or a flexible joint depending your application and needs.

4 MOUNTING BOLTS



Use the 4 mounting bolts to attach the mounting plate to the Pick-it M-HD camera. Tighten them following the x-pattern, as indicated by the numbers in the figure left, until the recommended tension (2Nm) is reached per bolt.

4 TENSIONING BOLTS



ALLEN KEY
HEXAGONAL SIZE

Nominal Bolt Tension Guidelines

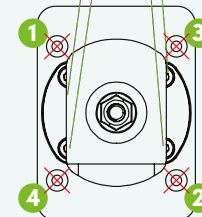
- Fixed joint (immobilized) = 2 Nm
- Flexible joint (mobile) = 0,75 Nm



Gradually adjust the tensioning bolts of the ball joint in small steps, following the x-pattern, as indicated by the numbers in the figure left, until the recommended tension is reached per bolt.

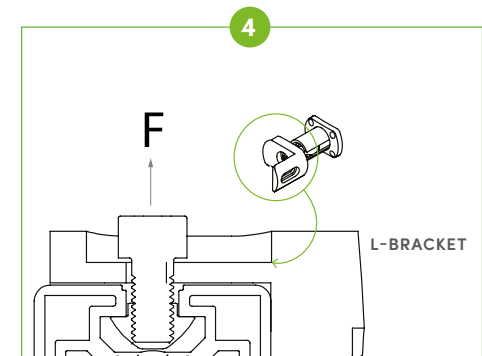
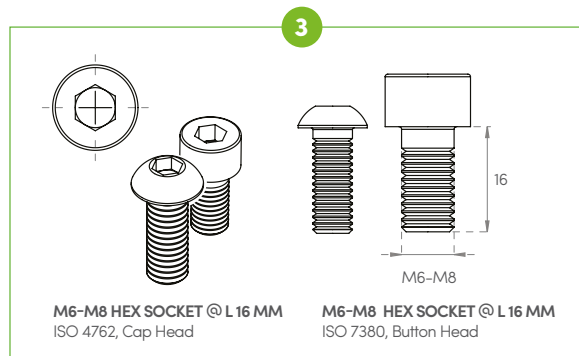
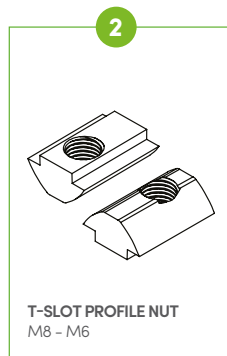
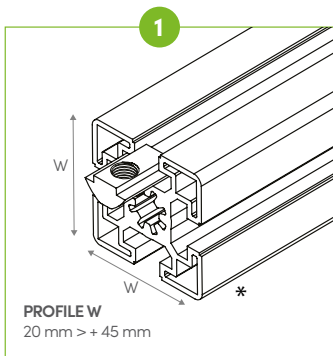
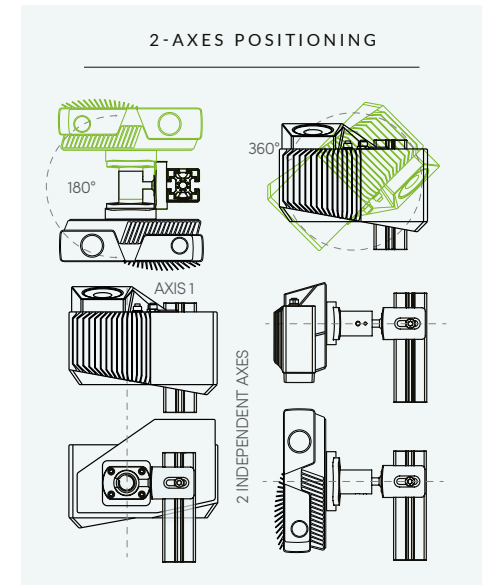
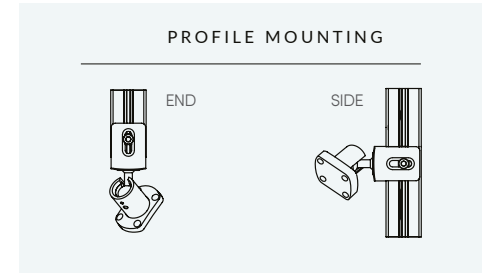
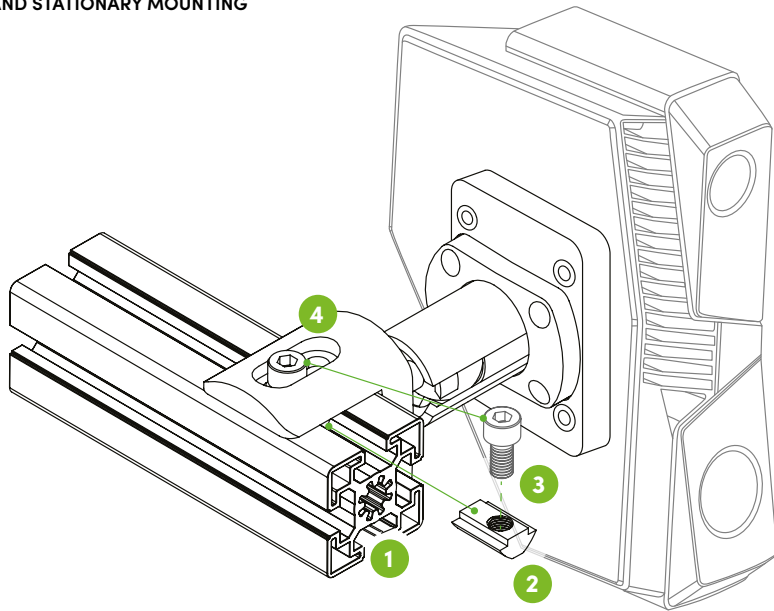


Follow the nominal bolt tension guidelines when adjusting the tensioning bolts of the ball joint to alter the joint's clamping force.



Stationary Mounting

SOFTWARE SUPPORTS ON-ROBOT MOUNTING AND STATIONARY MOUNTING



Profile type shown above is for illustrative purposes only. A wide range of profile types is supported by the L-bracket. Contact us for further info.