

# Pick-it <sup>M</sup> Camera Field of view

Typical usage: Picking of small  
(minimum dimensions of 10x10x10mm)  
and medium sized objects with high  
accuracy from bins, boxes and tables.

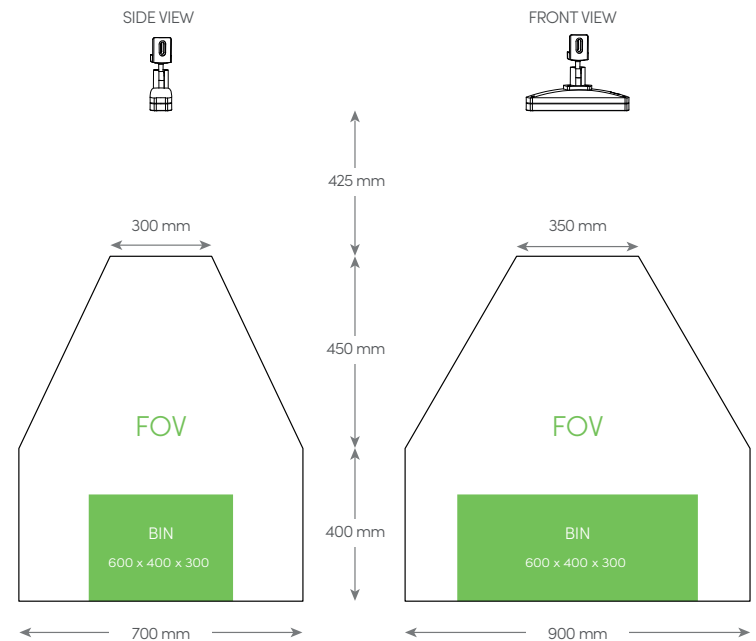
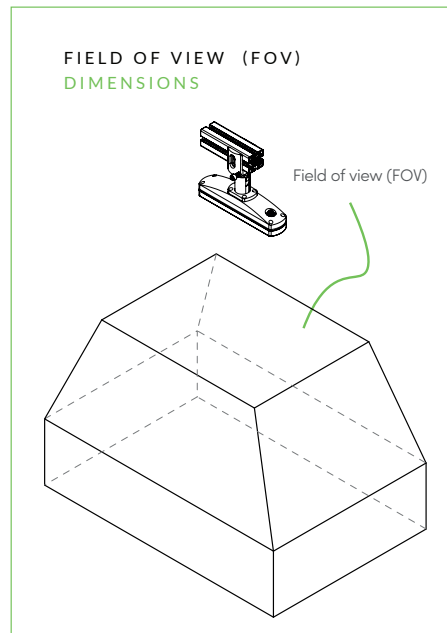
To be visible for Pick-it, all parts or items of interest must be inside the **field of view** (FOV) of the 3D camera.

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.

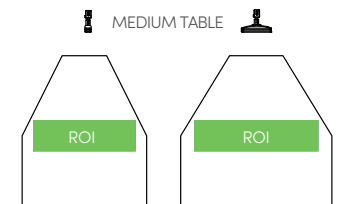
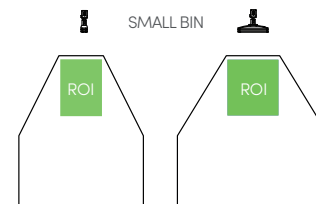
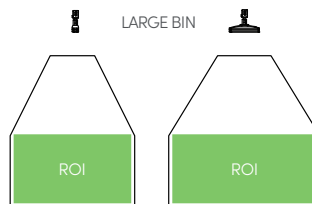
The possible dimensions of the ROI depend of the distance between the 3D camera and your ROI.

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

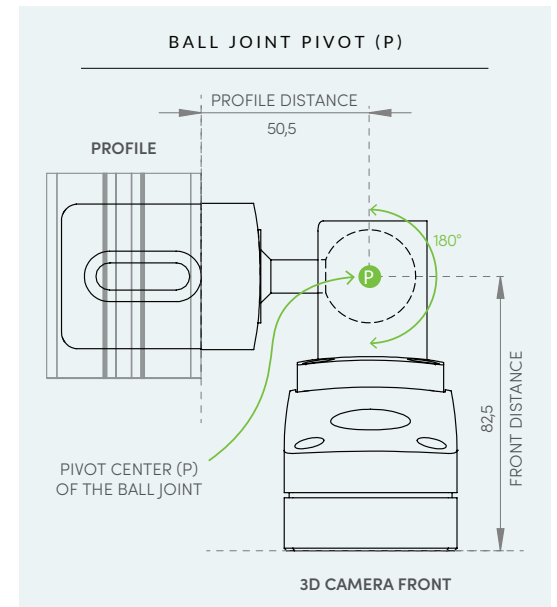
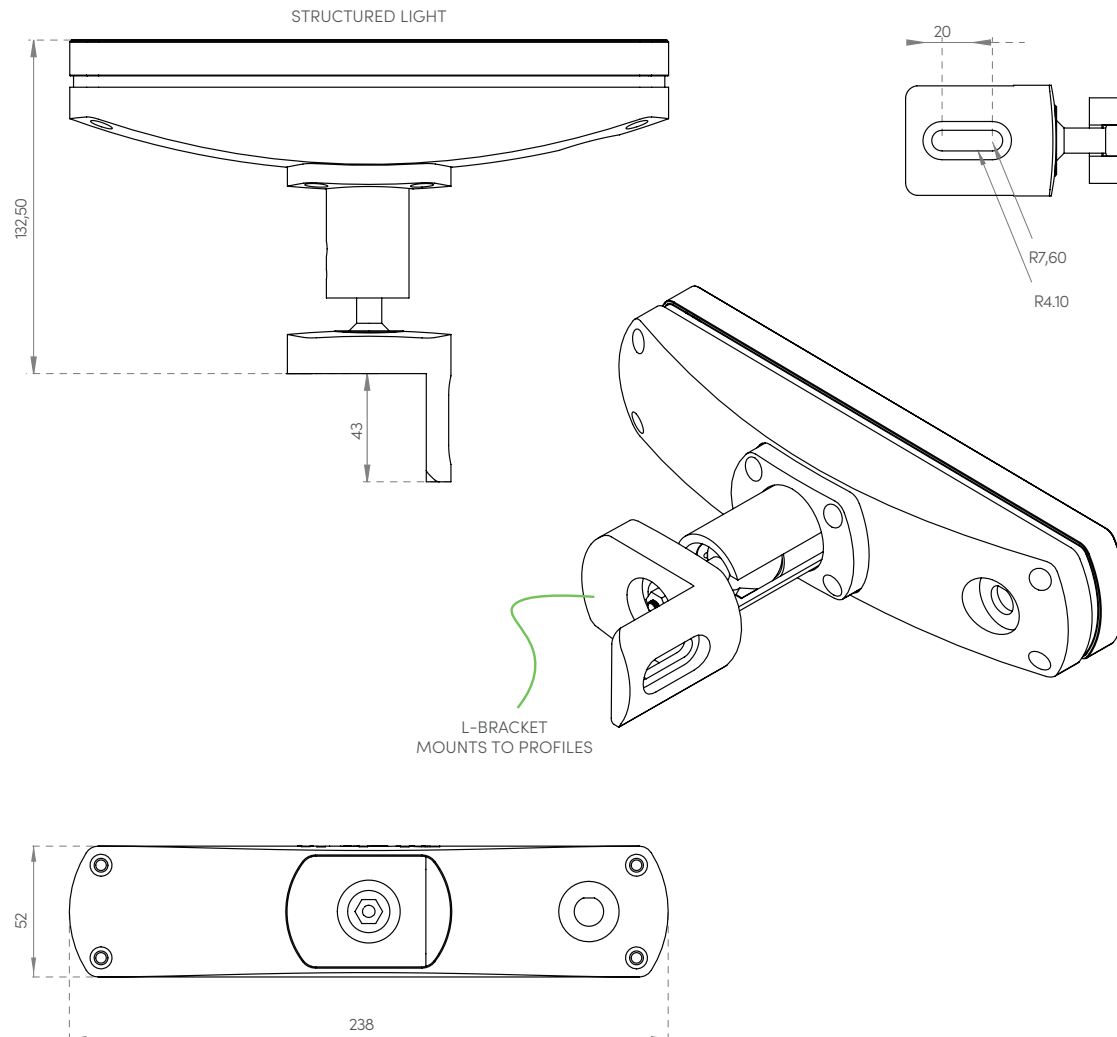
**Bringing your application further from the camera will lower image quality and enlarge the potential ROI volume.**



REGION OF  
INTEREST (ROI)  
EXAMPLE  
APPLICATIONS

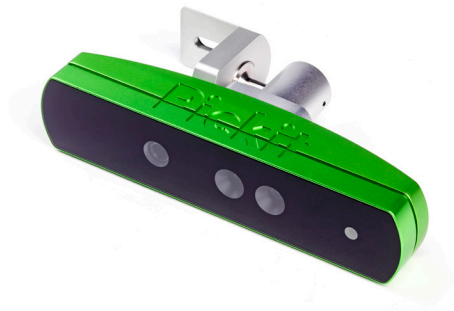


# Pick-it Camera Dimensions



All dimensions in mm

# Pick-it Facts



## CAMERA TECHNICAL SPECIFICATIONS

3D measurement method	Structured light
Image processing speed	30 fps
3D Camera accuracy	< 3mm
3D Camera repeatability	< 1mm
3D camera weight	1030 g
3D camera connection to PC	M12 (USB) - USB3
PC connection to robot	TCP/IP over Ethernet
Power supply	USB3 5VDC
Temperature	5°C to 40°C
Humidity	-95% @ 40°C (non-condensing)
IP rating	IP55
Vibrations	Operating, 2 Grms, 5-500 Hz, 3 axes
Conforms to	CE, FCC



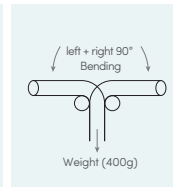
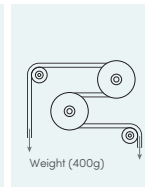
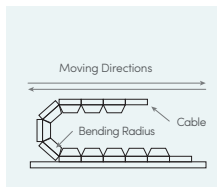
## CAMERA CABLE TECHNICAL SPECIFICATIONS

10m

### 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: 100W
- Idle: 60W
- Heavy processing: 130W

### 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

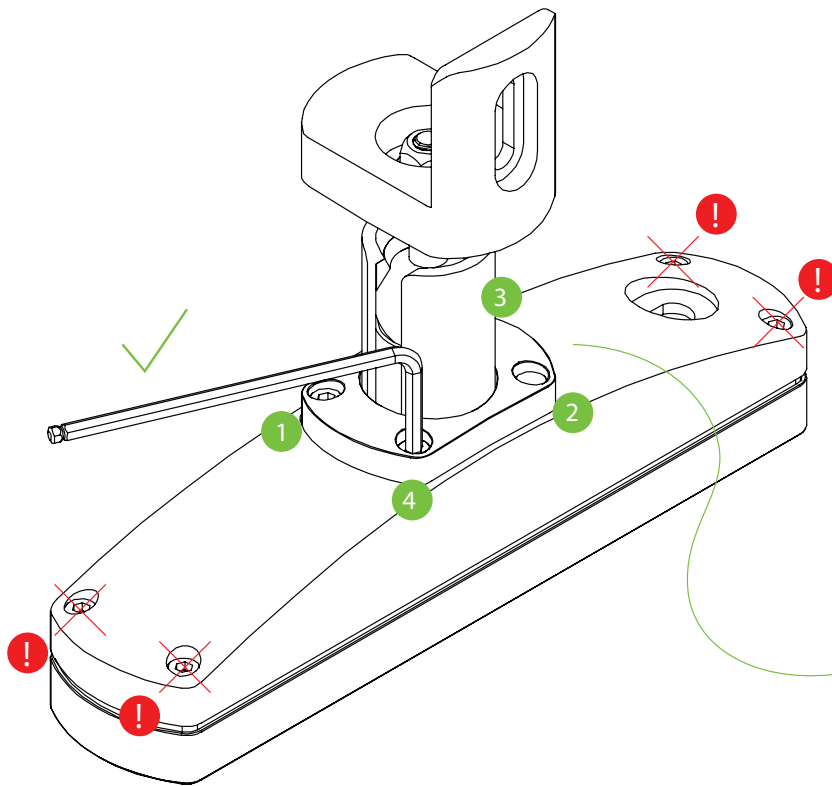


Pickit

ROBOT VISION MADE EASY

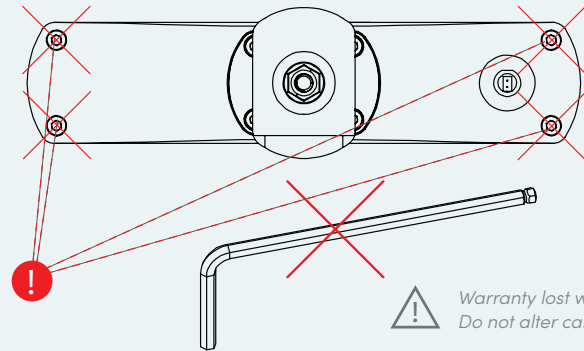
[support.pickit3d.com](https://support.pickit3d.com)

# 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 CALIBRATION BOLTS



Warranty lost when seal broken.  
Do not alter calibration bolt tension!

## 4 TENSIONING BOLTS

### Nominal Bolt Tension Guidelines

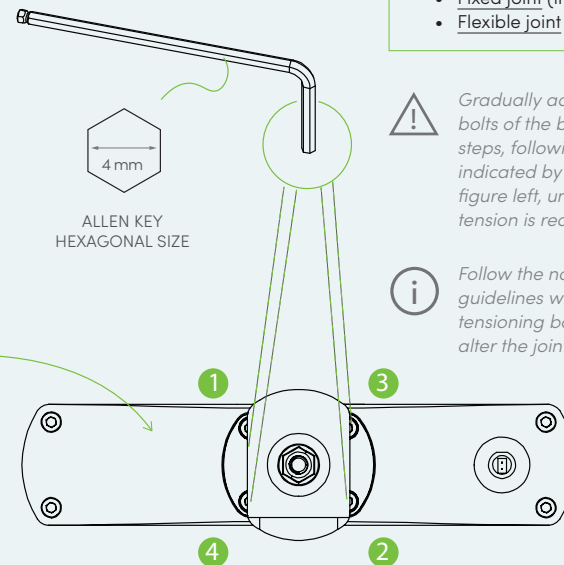
- Fixed joint (immobilized) = 2 Nm
- Flexible joint (mobile) = 0,75 Nm



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.

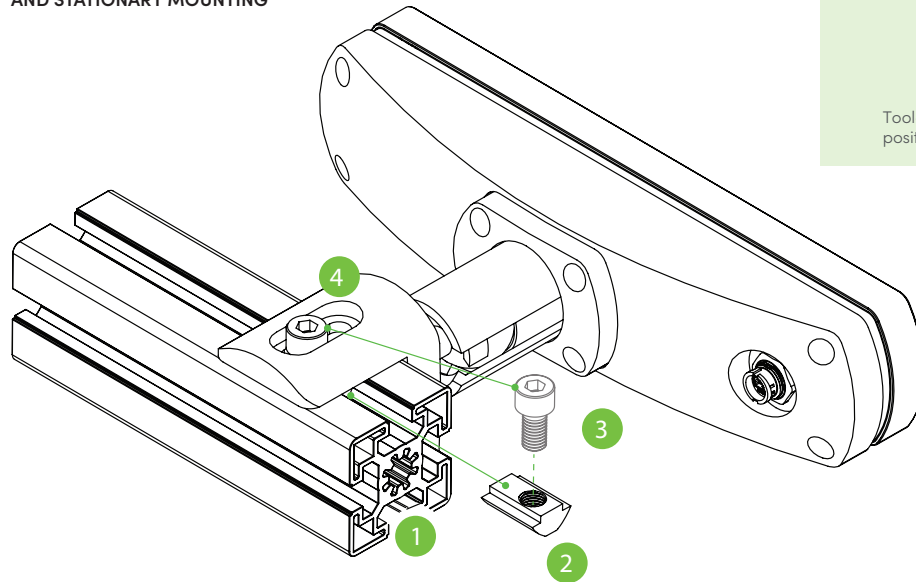


Follow the nominal bolt tension guidelines when adjusting the tensioning bolts of the ball joint to alter the joint's clamping force.

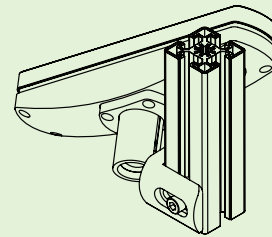


# Stationary Mounting

SOFTWARE SUPPORTS ON-ROBOT MOUNTING  
AND STATIONARY MOUNTING

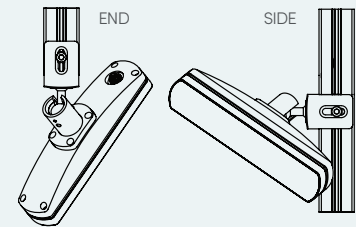


## RELEASE & LOCK BALL JOINT

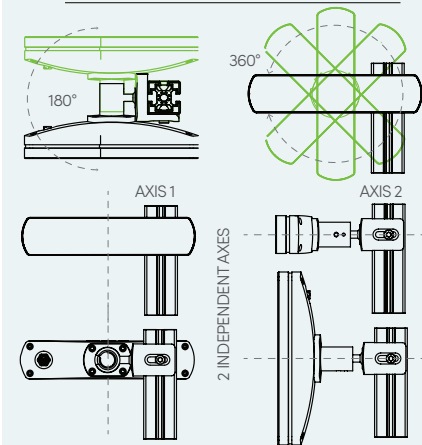


Tool-free 3D camera  
positioning in any angle

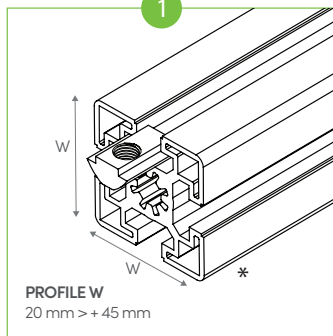
## PROFILE MOUNTING



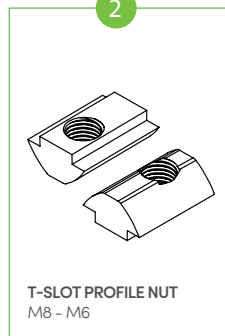
## 2-AXES POSITIONING



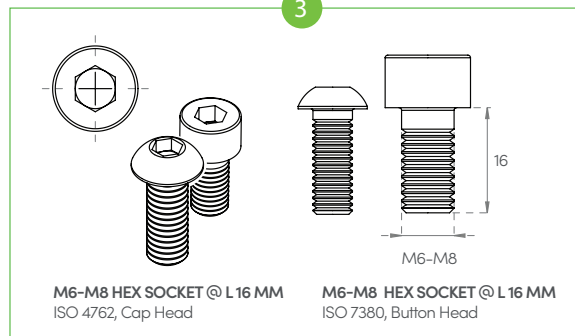
1



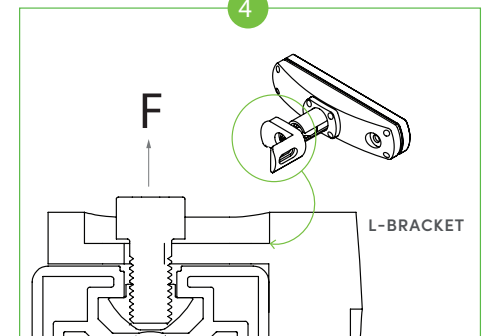
2



3



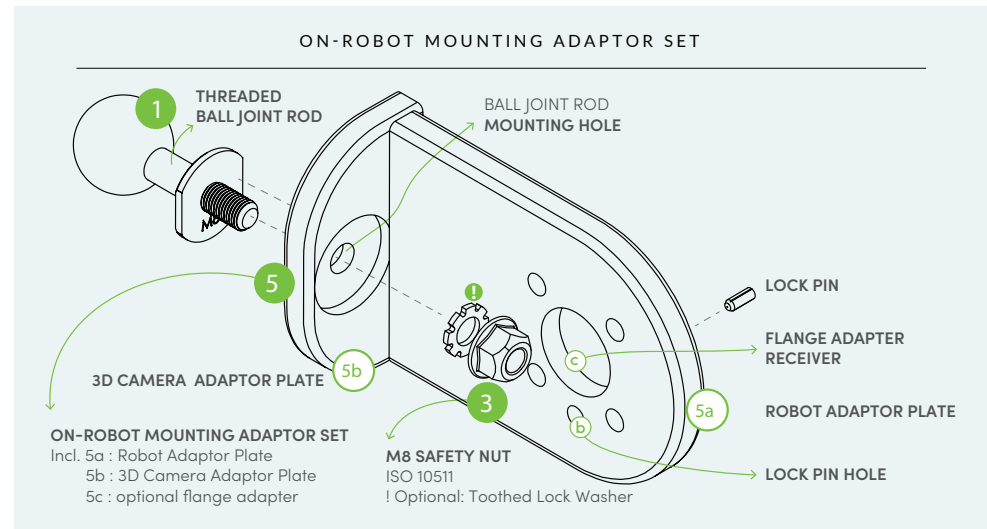
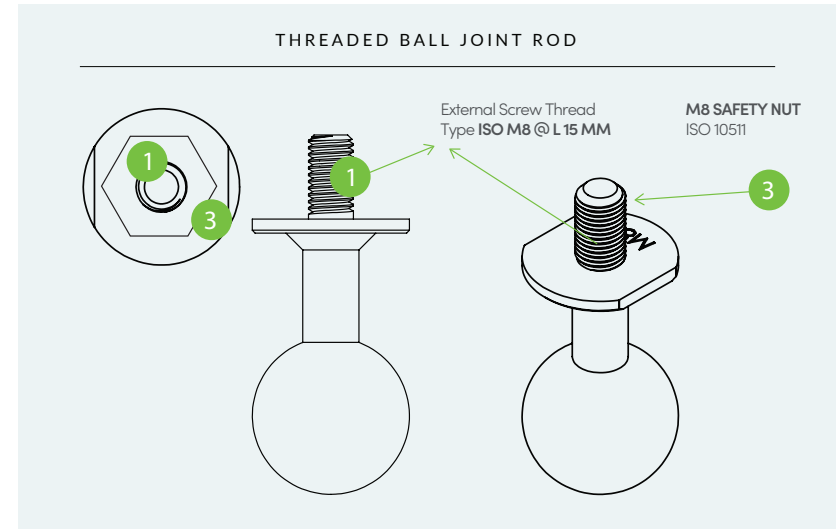
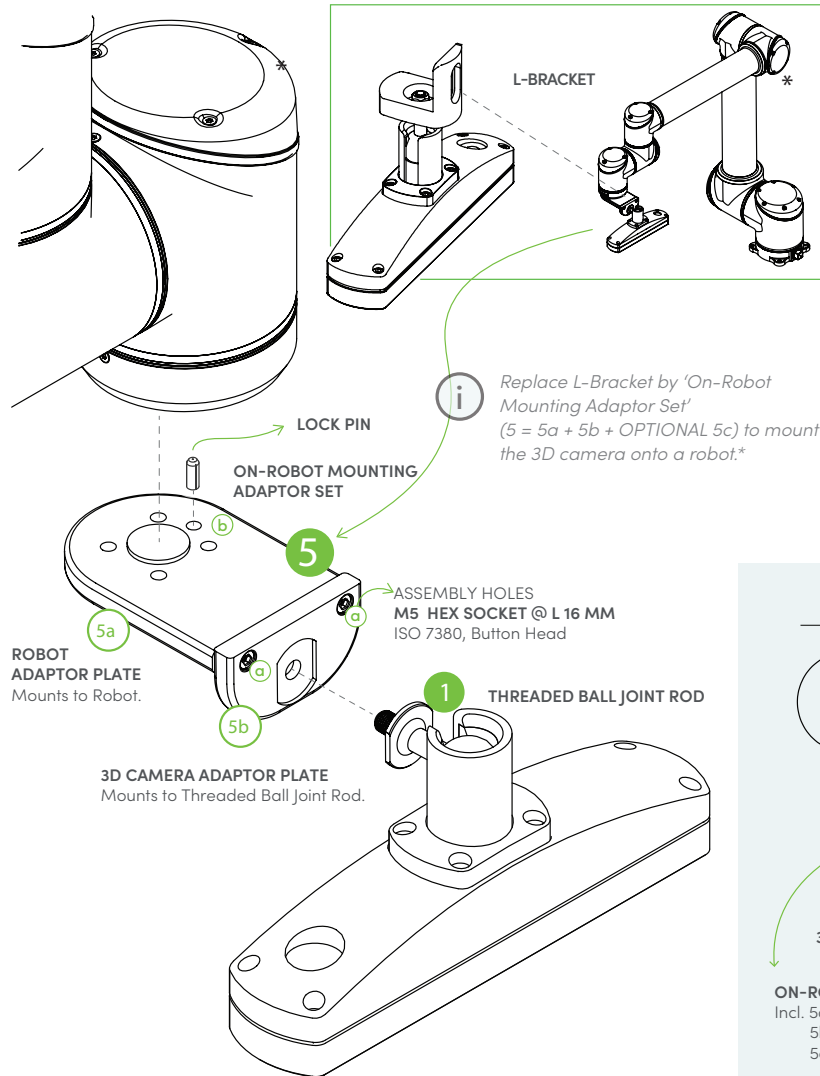
4



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.

# On-Robot Mounting

SOFTWARE SUPPORTS ON-ROBOT MOUNTING AND STATIONARY MOUNTING



\*Robot shown is for illustrative purposes only. A wide range of robot flange types is supported. Contact [sales@pickit3d.com](mailto:sales@pickit3d.com) for further info.