

## Explore the capabilities of 3D vision



### Tested at

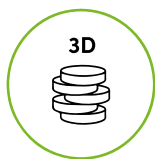


### Implemented by

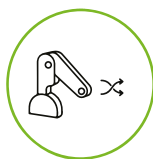


# Start exploring the capabilities of 3D vision

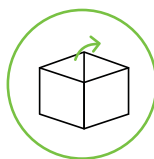
**Focus on innovation,**  
rather than reinventing the wheel  
with this out of the box vision  
component.



3D  
perception



motion  
control



trajectory  
generation



grasp  
planning

## The Pickit R&D kit contains

- The Pickit M 3D camera
- An extensive ROS interface for advanced functionalities and component interfacing
- A non-industrial downsized processor perfect fit for research
- Our main powerful software algorithms:
  - ✓ Pickit Teach for classic bin picking applications
  - ✓ Pickit Flex and Pattern for any pick and place tasks
- Optional: Integration with all major robot brands

You can find all information and tutorials on our products  
at our online knowledge base: <https://docs.pickit3d.com/>

Now you can implement 3D vision at the price of 2D vision.  
Get a quote at [sales@pickit3d.com](mailto:sales@pickit3d.com)

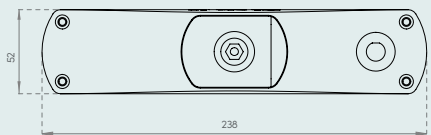
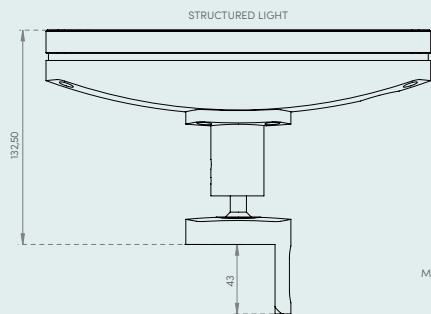
*“With Pickit, I could focus on my research on trajectory generation without having to spend time on the 3D perception side, which was not the subject of my research.”*



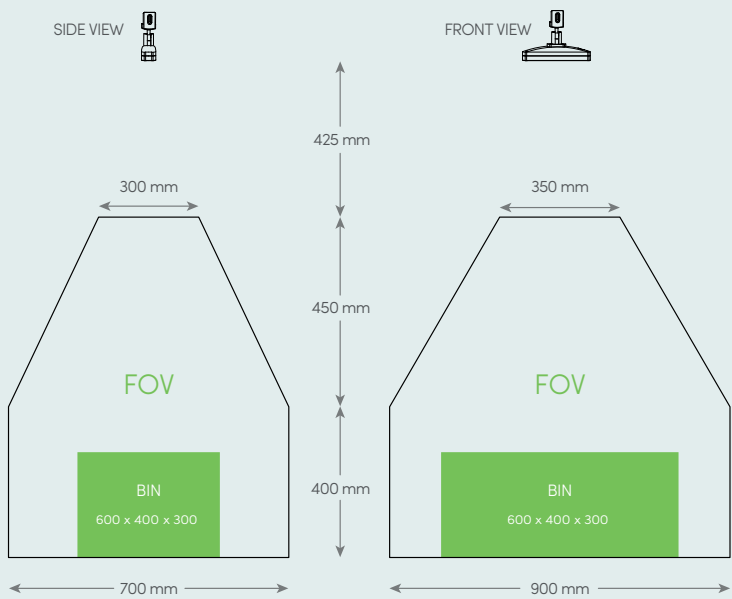
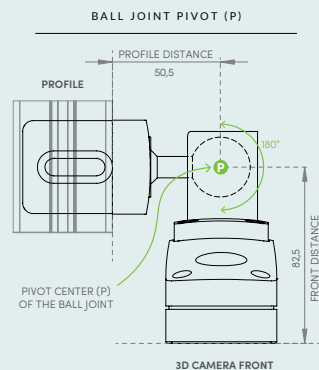
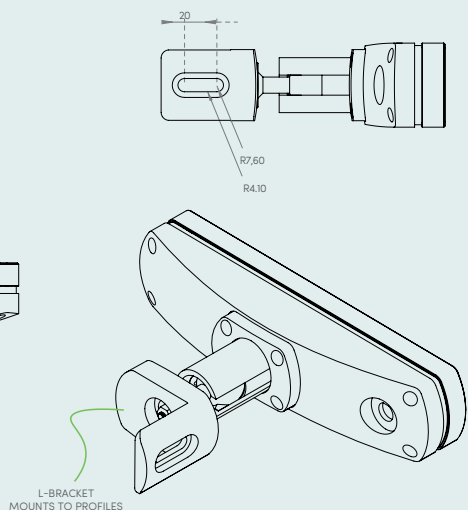
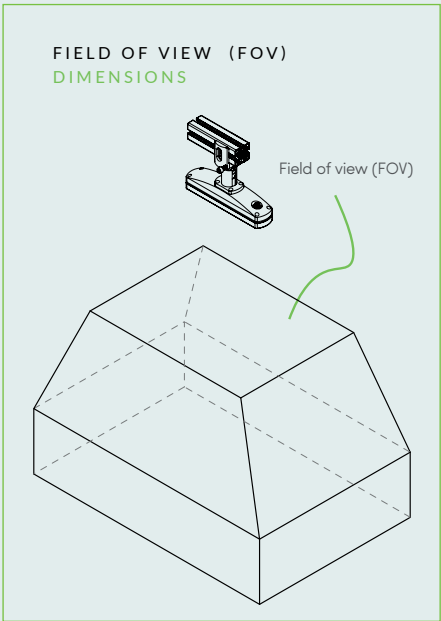
### TEST AND LEARN FAST

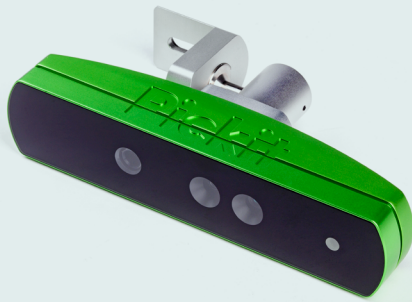
With our easy to use software and camera you can **test many setups in no-time.**

# Pickit M facts



Minimum object size:  
50 x 50 x 10 mm





#### 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



WORKS WITH ROS

ROS

OPTIONAL: USE PICKIT WITH THE ROBOT OF YOUR CHOICE



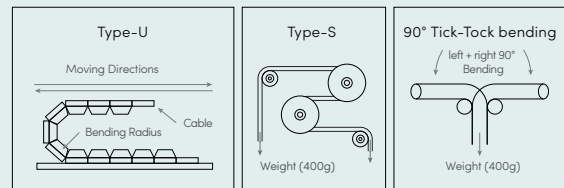
#### CAMERA CABLE TECHNICAL SPECIFICATIONS

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

##### Technical specifications

- Processor: 4 cores (8 threads) at 2.7 Ghz (up to 4.5 Ghz)
- Form factor: HTPC (117 x 51 x 112 mm)
- 19 inch server: rack compatible (1U)
- Temperature: Non-Operating -40°C to +60°C, operating (board) 0°C to 50°C, operating (system) 0°C to 35°C
- Vibrations:
  - 5 Hz to 20 Hz: 0.001g<sup>2</sup>/Hz sloping up to 20Hz@0.01g<sup>2</sup>/Hz
  - 20 Hz to 500Hz: 0.01 g<sup>2</sup>/Hz (flat) Input acceleration 2.2 g RMS
- Power supply: 12-19VDC 65W
- Humidity: The operating and non-operating environment must avoid condensing humidity, see [this article](#) for more information
- Weight: 1.3 kg

FANUC

STÄUBLI

KUKA

YASKAWA

ABB

UNIVERSAL ROBOTS



NACHI

OMRON



Pickit