



PICK-IT 3D VISION



HOW DOES 3D VISION WORK?

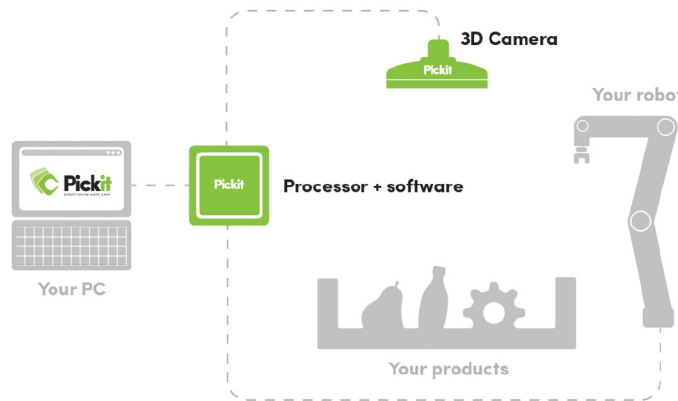
Pick-it's camera uses structured light to project a known pattern onto a scene within the region of interest. Based on how the pattern deforms, the software is able to calculate the depth and surface information of the objects to be picked. Products can be overlapped and of varying size and material, in glossy or matte colors. The benefit over traditional 2D vision is that the 3D camera does not require special lighting and can handle reflections.

A Complete Solution

The Pick-it product consists of the 3D camera as well as software installed on an industrial processor.

The entire ecosystem is plug-and-play making for a user friendly experience. Connect a PC or laptop to the Pick-it processor to configure your application through the Pick-it web interface.

Connect your robot of choice to the Pick-it processor to program your robot with some easy commands to start picking.



3D Vision Suited Applications

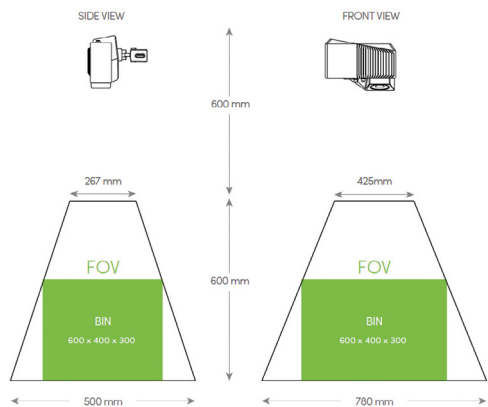
- Bin Picking
- Machine Loading
- Depalletizing
- Kitting
- Assembly

3D CAMERAS

Pick-it M-HD



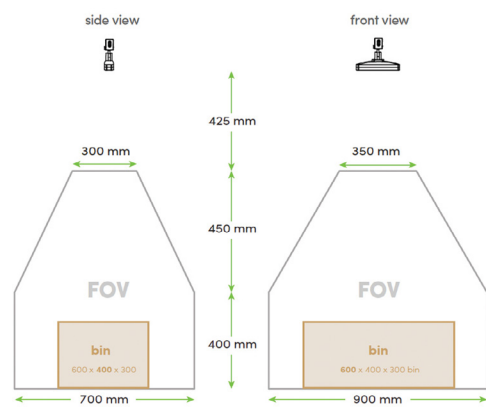
Best Fit for Picking	Small / Medium Objects
3D Measurement Method	Structured Light
Image Processing Speed	>10 Hz
3D Camera Accuracy	0.1 mm
3D Camera Repeatability	<1 mm
3D Camera Weight	2 kg
Camera Connection to PC	USB3
PC Connection to Robot	TCP/IP over Ethernet
Working Temperature	10°C to 40°C
IP Rating	IP65
Conforms To	CE, CB, EN6950, FCC A



Pick-it M



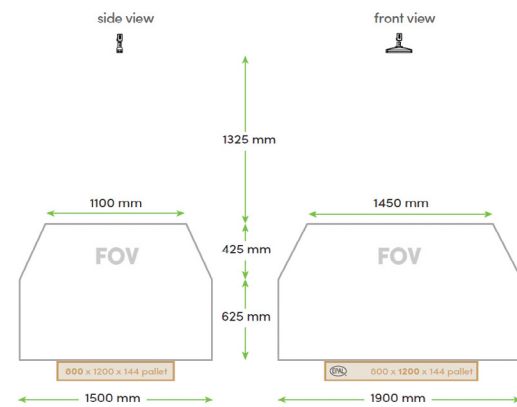
Best Fit for Picking	Medium Objects
3D Measurement Method	Structured Light
Image Processing Speed	30 Hz
3D Camera Accuracy	<3 mm
3D Camera Repeatability	<1 mm
3D Camera Weight	895 g
Camera Connection to PC	USB3
PC Connection to Robot	TCP/IP over Ethernet
Working Temperature	10°C to 35°C
IP Rating	IP55
Conforms To	CE, FCC



Pick-it L



Best Fit for Picking	Large Objects
3D Measurement Method	Structured Light
Image Processing Speed	30 Hz
3D Camera Accuracy	<15 mm
3D Camera Repeatability	<10 mm
3D Camera Weight	895 g
Camera Connection to PC	USB3
PC Connection to Robot	TCP/IP over Ethernet
Working Temperature	10°C to 35°C
IP Rating	IP55
Conforms To	CE, FCC



PROCESSOR

The Pick-it processor has been updated to 2.0! Utilizing a CPU that is 20% faster and a more powerful graphics card, the new Pick-it is capable of 1.25X faster detections from the original version.



CPU	6 Cores / 12 Threads @ 3.7 Ghz
Processor Rack Size	19" Rack Compatible (2U)
Working Temperature	-20°C to 70°C
Humidity	95% @ 40°C (Non-Condensing)
IP Rating	IP54
Power Supply	9-32V DC 160W

For All Major Robot Brands

Pick-it integrates out of the box with all major robot brands:

ABB, Fanuc, KUKA, Stäubli, Universal Robots and Yaskawa.

Communication between the robot and Pick-it runs over TCP/IP and the protocol is both open and documented, so feel free to integrate any other robot with Pick-it.

