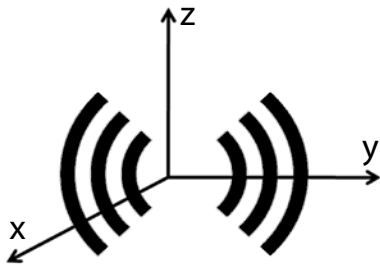
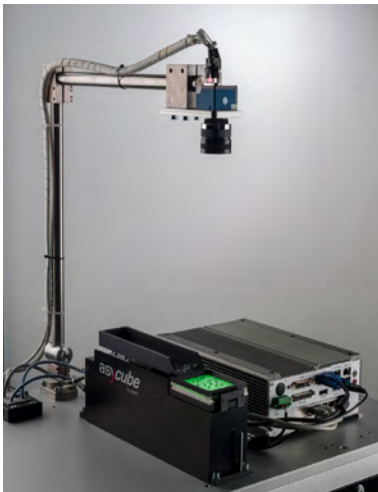


SmartSight

Intelligent Visual Part Detection System for Asycube Flexible Feeders



**3-Axis Vibration Technology
Innovation by asyri!**



Advantages

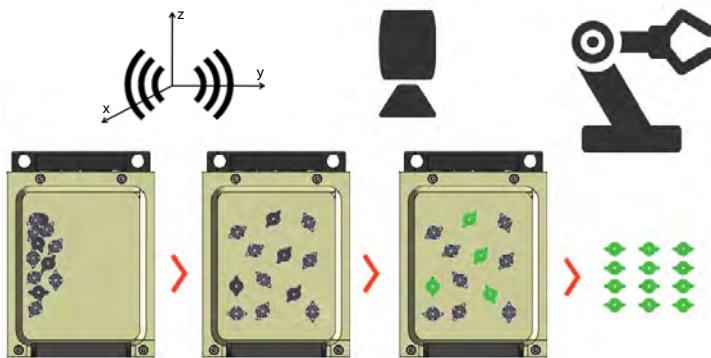
- ▶ **Fast integration** : direct output of part coordinates to the robot, fully automatic control of feeder vibrations and part detection
- ▶ **Quick setup and reduced development times** : get started immediately on your application
- ▶ **Attractive, highly competitive system costs** as up to 4 cameras and Asycube feeders can be controlled with a single SmartSight control unit
- ▶ **Software based on market standard** : proven industrial vision library
- ▶ **Intuitive teaching and configuration** with Asyri!'s control software
- ▶ **Compatible with any Asycube vibrating platform**
- ▶ **Compatible with any PLC & industrial robot brand**

SmartSight

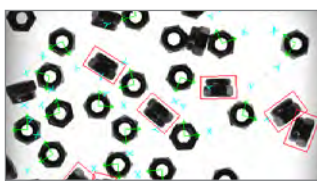
Intelligent Visual Part Detection System for Asycube Flexible Feeders

How it works

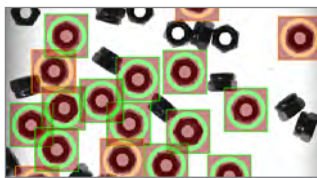
- ▶ SmartSight describes Asyрил's intelligent visual part detection system, ensuring straightforward integration of any Asycube vibrating platform with any industrial robot brand. Comprising Asyрил's powerful visual part detection software, an industrial control PC as well as an optimally configured vision kit including camera, lens and all necessary cabling, SmartSight makes the implementation of high performance flexible feeding systems straightforward.
 - ▶ SmartSight automatically controls the part movements on the feeder (Asycube) as well as the part supply (hopper) based on the vision system feedback about the part locations and quantity.
1. Homogeneous parts separation and orientation using Asyрил's innovative 3-Axis Vibration Technology
 2. Detection of correctly oriented parts by asyрил SmartSight vision system
 3. Part pick from platform and assembly by robot



Application Example



Detection of part location, orientation as well as pitch-and-toss



Define part gripper geometry and exclusion zones to avoid collisions

Input	Output					
ID	X	Y	Z	Theta	Accepted	Reason
00	-6.69639	19.70763	0.00000	-2.7987	True	None
01	27.99823	16.70434	0.00000	-0.9379	True	None
02	10.84051	25.51491	0.00000	-1.2982	True	None
03	-22.84455	-1.09138	0.00000	1.1949	False	Detection
04	-19.99992	-5.75551	0.00000	0.9342	False	Detection
05	-18.67354	16.56145	0.00000	-0.2781	False	Detection
06	18.06756	10.49035	0.00000	1.3469	False	Detection
07	33.06099	-2.42469	0.00000	-1.5540	True	None
08	6.40742	-5.61627	0.00000	-0.7126	False	Detection
09	17.34033	-15.43251	0.00000	-0.5959	False	Detection
10	23.41988	8.93149	0.00000	0.8997	False	Detection
11	-21.64968	-19.64231	0.00000	-0.6448	True	None
12	-5.90521	-10.81606	0.00000	0.0165	False	Detection
13	-0.50245	-27.75040	0.00000	2.8331	True	None
14	26.44399	-6.81890	0.00000	-1.3312	True	None
15	-1.07374	-0.97460	0.00000	-3.9939	True	None
16	28.43090	-13.31599	0.00000	-0.3052	True	None
17	31.95419	-10.50325	0.00000	0.2238	True	None
18	25.89591	-20.33318	0.00000	0.5030	True	None
19	27.98982	2.59262	0.00000	-1.0006	True	None
20	-7.16421	8.33186	0.00000	1.2693	True	None
21	5.71722	5.99004	0.00000	0.0525	True	None
22	7.21025	14.65096	0.00000	-2.0179	True	None

Coordinates of accepted parts are easily output to any industrial robot

About Asyрил

- ▶ Asyрил develops, produces and markets high performance flexible feeding systems for parts and components from <0.1 up to 150 mm in size. Our innovative 3-axis vibration technology can handle bulk parts of any geometry and allows for extremely gentle part feeding.
- ▶ Asyрил's key competences and extensive know-how encompass all three sub-domains of modern part feeding systems: vibration technology, industrial vision and precision robotics. This unique focus combined with our many years of experience enable us to deliver superior, innovative flexible feeding systems for today's and tomorrow automation challenges.

Specifications

FEATURES

Compatible with all materials & component geometries
Component position and orientation recognition (x, y, pitch/toss)
Simple recipe changeover and new parts programming
Integrated calibration procedure
Power supply : 24 V
Communication : TCP / IP

Working Distance

STANDARD RESOLUTION (1.6 MPX)

Feeder	Large Distance		Close Distance	
	[mm]	[~inches]	[mm]	[~inches]
Asycube 530	1520	~ 59.9	800	~ 31.5
Asycube 240	860	~ 33.9	510	~ 20.1
Asycube 80	730	~ 28.7	380	~ 15.0
Asycube 50	490	~ 19.3		

HIGH RESOLUTION (5 MPX)

Feeder	Large Distance		Close Distance	
	[mm]	[~inches]	[mm]	[~inches]
Asycube 530	1320	~ 52.0	840	~ 33.1
Asycube 240	840	~ 33.1	600	~ 23.6
Asycube 80	810	~ 31.2	430	~ 16.9
Asycube 50	580	~ 22.8	300	~ 11.8
Asycube 50, Small Field of View			390	~ 15.4



VERY HIGH RESOLUTION (12 MPX)

Feeder	Large Distance		Close Distance	
	[mm]	[~inches]	[mm]	[~inches]
Asycube 530	1280	~ 50.4	890	~ 35.0
Asycube 240	760	~ 29.2	530	~ 20.9
Asycube 80			540	~ 21.3
Asycube 50			370	~ 14.6

Options

Connect and control up to 4 Asycube feeders & cameras with a single control unit	
Alternative camera configurations	control part presence, position in gripper, deposition
Camera	standard resolution (1.6 Mpx) high resolution (5 Mpx) very high resolution (12 Mpx)
Coaxial frontlight	backlight integrated in Asycube feeding platform
Calibration plates	for optics and robot

Contact



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