

Spot-It

Spot defects before your customer does!



Spot-It

Spot-It is a compact and rugged Machine Vision System that is used for detecting and removing defects in the manufacturing / assembly line. Spot-It can be programmed, installed, and made operational in less than a week for applications including:

- **Assembly Defects (Presence, Absence, Position, Orientation, Alignment)**
- **Components Mix-up Detection and Classification (Size, Shape, Color, Count)**
- **Inspection Mark Verification (Color Dots, OK Sticker, Printed Characters)**

Spot-It can perform the check and actuate the next assembly step only if the component passes thereby mistake proofing the production process.

Key Features

Fully User Programmable

User can easily program their application without learning any programming language through a unique configuration type user interface

Reliable and Rugged

Fully sealed and rugged embedded system with high performance DSP delivers real time deterministic performance even at 60°C

Unbeatable Value

Comprehensive package with complete programming flexibility offered with outstanding support at an unbeatable value to our customers

Complete Vision System

Includes all the components necessary to complete a vision system

- Camera
- Lens
- Lighting
- Processor
- Software
- Optically isolated I/O lines
- Cables
- Mounting accessories



Vision Artist

Soliton's Vision Artist, which comes bundled with Spot-It, is an easy to use configuration type interface through which the application specific image processing algorithms can be interactively programmed and downloaded into Spot-It.

The Vision Artist comprises of the following modules

Image Acquisition

Setup continuous / triggered image acquisition

Image Processing

Identify the defects in the product

Control Actions

Send Pass / Fail signals to the actuators, indicators and alarms

Advantages

Dual Inspection

Spot-It can be connected to one or two machine vision cameras. The software enables Spot-It to be configurable for two different sequential inspections on the same processor.

Robust Defect Detection

A key differentiation between Spot-It and the competing products is that Spot-It enables full control of the image processing steps through programming, rather than just pattern matching where the user has no control over the process. Programming provides more flexibility and a more robust defect detection algorithm can be implemented for each application.

Calibration of Imaging Conditions

Every Machine Vision System requires controlled imaging conditions for proper functioning. In order to maintain the imaging conditions within the required tolerances, Spot-it comes with a Calibration Module that enables the user to reproduce the initial conditions, if the system gets disturbed for any reason.

Wider Range of Applications

Using the programming capability of Spot-It the user has the full flexibility to address a wider range of applications than products that are suited for only a particular type of application. These features put Spot-It a good step ahead of the other Machine Vision Systems.



Vision Artist

Technical Specifications

Hardware	Details		Spot-It 400-1	Spot-It 400-2
Camera with Power Supply	Resolution : 640 X 480 Power : DC 12V, 1.5A Connector : BNC Connector Shutter : Electronic Output : Colour Configurable Parameters : Brightness, Contrast		1	2
Optics #	Focal length : 12 - 75 mm Mount : C Mount		1	2
Lighting #	CFL lighting with a High Frequency Ballast		1	2
	Application specific Lighting will be available based on order			
Software	Spot-It Explorer Vision Artist	OS* - Windows XP RAM* - 256 MB	1	1
Processor	High performance DSP for image processing and control		1	1
	Memory - 12KB Non Volatile			
Digital I/O	Type : Open Collector		✓	✓
	Inputs : 2-5 optically isolated 24 V lines(upto 3 triggers)			
	Outputs : 6 optically isolated 24 V lines			
Communication	Ethernet 10/100 Mbps RJ-45 connector		1	1
	Serial (RS-232) Db9 connector			
Power Supply	Processor - 5V DC, 2A (typical load is 500 mA)		✓	✓
	Camera - 12V DC, 1.5A (typical load is 200 mA)			
Dimensions Weight	20 x 18 x 4.5 cm		-	-
	1642 Grams			
Cables	All required cables are included		✓	✓

* Requirements # Application Specific optics and lighting will be available based on order.

Industries

- ▶ Automotive
- ▶ Pharmaceutical
- ▶ FMCG
- ▶ Packaging
- ▶ Food Processing
- ▶ Manufacturing

Customers

- ▶ Delphi
- ▶ Visteon
- ▶ Bridgestone
- ▶ TATA Motors
- ▶ MICO
- ▶ Pricol
- ▶ Gabriel
- ▶ Hindustan Pencils
- ▶ Carborundum Universal
- ▶ BARC
- ▶ IIT Delhi
- ▶ PSG Tech

Support

Soliton has Applications Engineers at Bangalore, Chennai, Coimbatore, and Pune to provide prompt support for our customers. Our product comes with a standard 1 year warranty and we assure support on the same or next day and resolution within 48 hours.

Contact Information

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