



## FSI Product and Engineering Updates

### FSI Machine Vision – High Frequency Florescent or LED?

A properly engineered lighting solution is one of the most important components of an automatic inspection system. Manufacturers often wonder what type of light will do the best job. LED lights have become a popular choice for machine vision lighting in recent years for a variety of reasons:

- Bright, targeted light is emitted
- Light never fades, bulbs rarely burn out
- Ideal for applications that need a light with a high cycling rate



However, often times the wiser choice is to go with a high-frequency fluorescent light. Advantages to this type of light are:

- More economical
- Bright, uniform light over a larger emissive area

The type of inspection you are doing, the differences you are attempting to highlight and your overall budget will lead you towards the ideal light for your solution. For more information about machine vision lighting, visit [www.fsinet.com/Vision-Lighting.html](http://www.fsinet.com/Vision-Lighting.html).

### Proper filters can make the difference

Another important component of a successful machine vision system is choosing the appropriate filter. The right filter can dramatically improve the work efficiency of a vision system. Filters are used to increase contrast, separate color or control camera exposure. When increased contrast is achieved, a system has greater accuracy and can sometimes operate at an increased speed. Filters also help to protect the lenses behind them. FSI Technologies Inc. can offer a wide variety of filters to meet the needs of many different types of applications. Filter types include “bandpass filters”, “polarizing filters”, “longpass filters” and “neutral density” filters.

### Product News: FSI/EVT ChipEye 5-Side

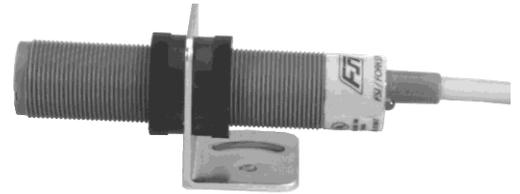
In collaboration with our partners, EyeVision Technologies, FSI is proud to announce our “ChipEye 5-Side” inspection system. This system is designed to inspect components from 5 different angles (top and four sides) at the same time. When used in combination with a specialized software solution, “Chip Control”, this unit is uniquely suited to inspect semiconductor parts. It has a robust, industrial-strength frame and features a 5-megapixel camera that can detect even the tiniest of



defects and measurements equal to a micrometer. A standard model supports an image field of 5 X 5 mm, accuracy up to 1 micrometer and resolution of 640 X 480. If you think this system sounds appropriate for your application, please consider speaking with one of our Engineers about it at 630-932-9380.

### **Would your application benefit from a customized sensor?**

In addition to encoders and machine vision systems/solutions, FSI Technologies Inc. designs and manufactures custom photoelectric sensors too. Many OEMs use sensors as an inexpensive and effective way of assisting in automatic inspection. Sensors are most often used to measure speed (or RPM), presence or absence of a part and as a way to calculate distance/positioning. If you think your application would benefit from a leading edge, specialized sensor product, one of our engineers can steer you in the right direction. For more information about FSI sensors, visit [www.fsinet.com/ECS-Sensors.htm](http://www.fsinet.com/ECS-Sensors.htm).



### **Implement Automatic Inspection in 2013 and Make it Your Profitable Year!**

Wouldn't it be nice to start realizing serious cost efficiencies in 2013? Take steps towards implementing automatic inspection in your manufacturing facility. An informational seminar might be the perfect first step in understanding what benefits machine vision can provide you. Call FSI for upcoming dates on an Introductory Machine Vision course that can give you the information you need – 630-932-9380.

**Feedback:** For questions about our products and services, call 630-932-9380. To discontinue receiving this newsletter, please hit "reply" and let us know to discontinue.