

# Metal Identification System



Computer with statistical analysis software

Weigh bin dumps scrap metal onto conveyor belt

Scrap metal

GigE cameras capture images of the metal's color

Shroud lighting

Scrap metal often consists of varying types of metals. A simple and reliable method is needed to quickly identify large quantities of scrap metal as they are being processed for recycling.



## Solution:

Two GigE cameras, shroud lighting, and a computer with statistical analysis software are used to create a system to reliably identify the metal being processed.

The load of metal is put into a weigh bin. After it is weighed, it is dumped onto a conveyor belt. The conveyor belt moves the metals quickly underneath shroud lighting. Meanwhile the metals are under the light, two GigE cameras capture images of the metals. The captured images show the differences in the colors of the metals.

This information is passed onto a computer with statistical analysis software. The computer processes the information and precisely determines the ratios of brass, copper, iron, and aluminum present in the load of metal based on the metal's color. For example, 6% copper, 8% brass, 25% aluminum, etc.

This system can quickly and accurately distinguish the various metals being processed by the bulk

Direction of conveyor belt

