

The IntelSight logo features a light blue downward-pointing triangle on the left. The word "IntelSight" is written in a bold, sans-serif font, with "Intel" in black and "Sight" in green. A small "TM" trademark symbol is located at the top right of the word.

# **IntelSight**<sup>TM</sup>

*THE ULTIMATE CHOICE IN AI VISION*



**NEATCO**

AI for the Circular Economy

**EST. 2010**

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# IntelSight™

THE ULTIMATE CHOICE IN AI VISION

1 IntelSight™

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2 Edge Computing Architecture

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3 Vision Systems Connectivity

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4 AI-Powered Robotics

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5 Unique Features

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6 3-Step Approach

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7 Industrial Applications

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**EST. 2010**



NEATCO

# IntelSight™

AI VISION CONTROLLER



When it comes to management, optimization, improvement, troubleshooting, process control, and defect management, a company's most valuable tool is data. Whether that data is the composition of material on a conveyor line, the number of defects detected on parts, the number of objects of a specific brand, or even the value of material undergoing sortation, it can all be collected, stored, and acted upon to improve the efficiency of a company. Usually, this data collection process is performed manually by human operators, which is mostly inefficient. Let's see how IntelSight™ makes the data available and accessible!

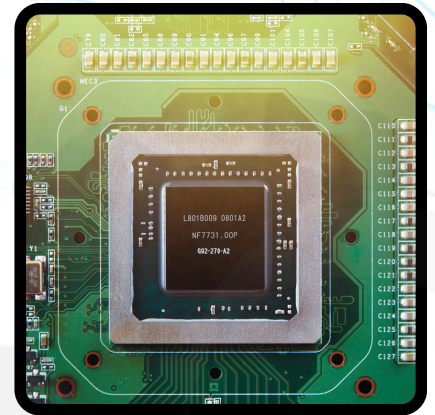
**... Enter IntelSight™!**



With IntelSight™, manual data collection has become a thing of the past! With Artificial Intelligence's power, IntelSight™ can be trained to detect, classify, grade, and collect data from any process or system within the industry. Depending on your needs, Neatco's experienced vision team will use advanced proprietary software to work with you and develop a fully customized vision algorithm for your specific application.

### Advanced AI Architecture

- AI Inference using edge computing devices
- Supports edge to cloud applications
- Perform a variety of tasks, such as grading or classification, in an industrial setting
- Utilize collected data to train itself; it gets smarter over time by processing more data



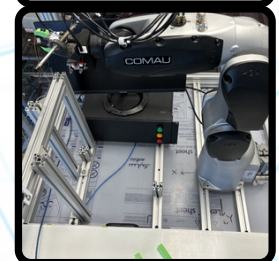
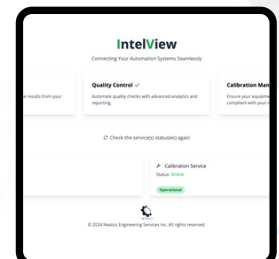
### Rugged and Reliable Design

- Electronics secured within a sturdy steel enclosure
- A fully sealed, fan-less enclosure protects the system in a dusty environment
- Industrial-grade electrical components
- Integrated surge protection and battery backup



### Part of the IntelSolve™ Family

- Seamlessly integrates with the IntelSort™ family of intelligent robotic sorting systems to enable fast, effective AI sorting
- Connects directly to Neatco's cloud-based IntelView™ platform to facilitate remote retraining





## Connectivity

- Ports including ethernet, USB, HDMI, and I/Os
- Power-Over-Ethernet capability enables control of GigE-standard cameras
- Built-in indicator lights to display system status
- Data analytics captured in real-time and transmitted to a variety of other network systems, such as servers, databases, PLCs, or robots
- AWS cloud compatibility for enabling edge to cloud applications

## Flexible Vision System

- Custom-designed vision stations built according to customer specific application
- Standalone installation or on top of an existing conveyor system
- Flexible to different belt widths, speeds, and viewing areas

IntelSight™ never utilizes pre-trained neural networks; each AI system is uniquely crafted using your own data and requirements. At the same time, we will work to integrate any modifications you require into the base hardware of the IntelSight™!



# IntelSight™

## RAPID AND COST-EFFECTIVE EXPANSION

The power of IntelSight's AI is especially noteworthy when tied to automation & robotic systems. With the decision-making ability of IntelSight's AI, tasks that could normally be performed only by human workers could be replaced by efficient digital systems. Such tasks will be done faster and reliably contributing to higher efficiency!

Configuration  
Diagnosis  
Programming



Intelsight  
AI Controller for  
Industrial Automation



Mobile operating device  
for commissioning and  
maintenance



Delta robots for pick &  
place applications



AWS Cloud Services



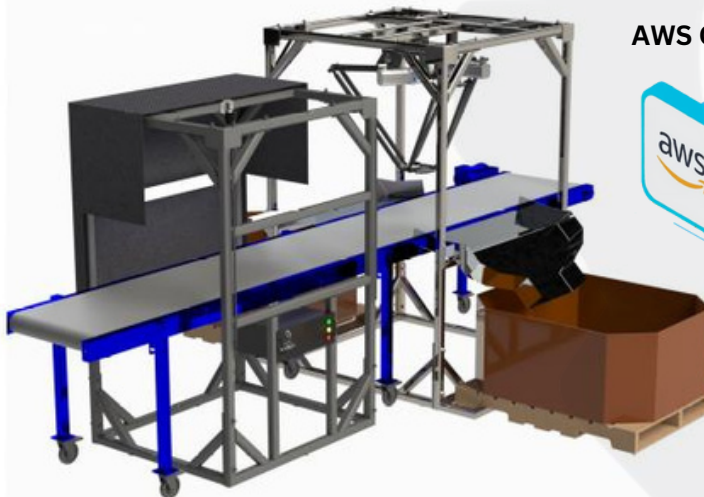
I/O



S I/O



SCADA and/or  
MES systems



Conveyor belts  
for  
product infeed



### **Safety Monitoring**

Integrated in front of a shredder or other heavy machinery, IntelSight™ could be used to monitor and shut down the infeed of hazardous objects like the presence of lithium batteries. Connected with the IntelSort™ robotic system, objects could be automatically removed using robots.

### **Comprehensive Reporting**

IntelSight's integrated data reporting features catalogue and record information that can be easily accessed and stored in a company database. Data could be used to forecast future trends, optimize the system, or detect faults in the process.

### **Quality Monitoring and Grading**

Sometimes processes must focus only on high-value material. IntelSight's AI system can be trained to grade items such as circuit boards as high value and low value based on composition and part density.

### **Process Control**

IntelSight™ can provide vision feedback by monitoring the outputs of processes, allowing machine parameters automatically tune. IntelSight™ can detect the metal concentration in the output fraction from an Eddy current or optical sorter to keep the sorting parameters tuned and maximize material recovery or detect and report a faulty equipment.

### **The IntelSight™ Unique Features**

- Flexible and adaptable
- Customized to suit your application
- Quick ROI
- Faster and more efficient than a human
- Intelligent AI classifying and sorting
- Automated monitoring and reporting

### **AWS Cloud Services**

Compatibility for cloud inference, reporting, and networking locally and globally for edge to cloud applications.



# IntelSight™

## 3-Step Approach

## For Development



### Stage 1.

After discussing your specific needs and requirements, Neatco's AI integration team will work with you to acquire the relevant data needed to train and develop your custom AI system.

### Stage 2.

The IntelSight™ is deployed into your facility, with remote monitoring, reporting, and updating provided by Neatco on an as-needed basis. During this time, the IntelSight™ continues to learn and improve itself and its accuracy.

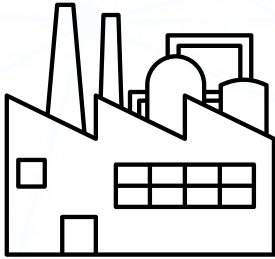
### Stage 3.

The IntelSight™ has improved to the point of fully independent operation. Further updates to the neural network, retraining, and technical support can be provided on a subscription basis from this point forward.



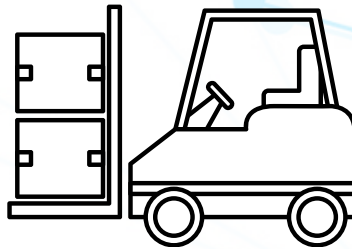
# IntelSight™

## INDUSTRIAL APPLICATIONS



### **Manufacturing**

- Vision Inspection
- Process Improvement
- Waste Reduction
- Defect Analysis
- Robotic Assembly



### **Supply Chain**

- Warehouse Automation
- Distribution Centers
- Packaging
- Quality Control
- Record-Keeping



### **Recycling**

- Data Analytics & Reporting
- Equipment Performance Improvement
- Robotic Sorting & Dismantling
- Quality & Safety Monitoring

## **Connect With Us**



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