**PANEL SUBSYSTEM CAMERA**

**1. Description  
Controls cameras for product identification, sorting, and tracking.**

**2. Functions**

* **Captures images for barcode reading and product recognition.**
* **Sends data to the sorting system.**

**3. I/O and Signals**

| **Signal Name** | **Type** | **Description** | **Panel** |
| --- | --- | --- | --- |
| **CAMERA\_TRIGGER\_CMD** | **DO** | **Activate camera for scanning** | **PANEL\_CONTROL\_RIO** |
| **CAMERA\_STATUS\_FB** | **DI** | **Camera operational status** | **PANEL\_CONTROL\_RIO** |

**4. Interlocks & Safety**

* **Camera operation halted if product not in proper position.**

**5. Dependencies**

* **Relies on PHOTO\_EYE\_INDUCT for item detection and alignment.**

**6. Alarms**

| **Alarm ID** | **Condition** | **Message** |
| --- | --- | --- |
| **A\_CAMERA\_01** | **Camera fault** | **"Camera Error"** |

**7. HMI / Operator Interaction**

* **Camera status display on HMI.**
* **Ability to test and configure camera settings.**