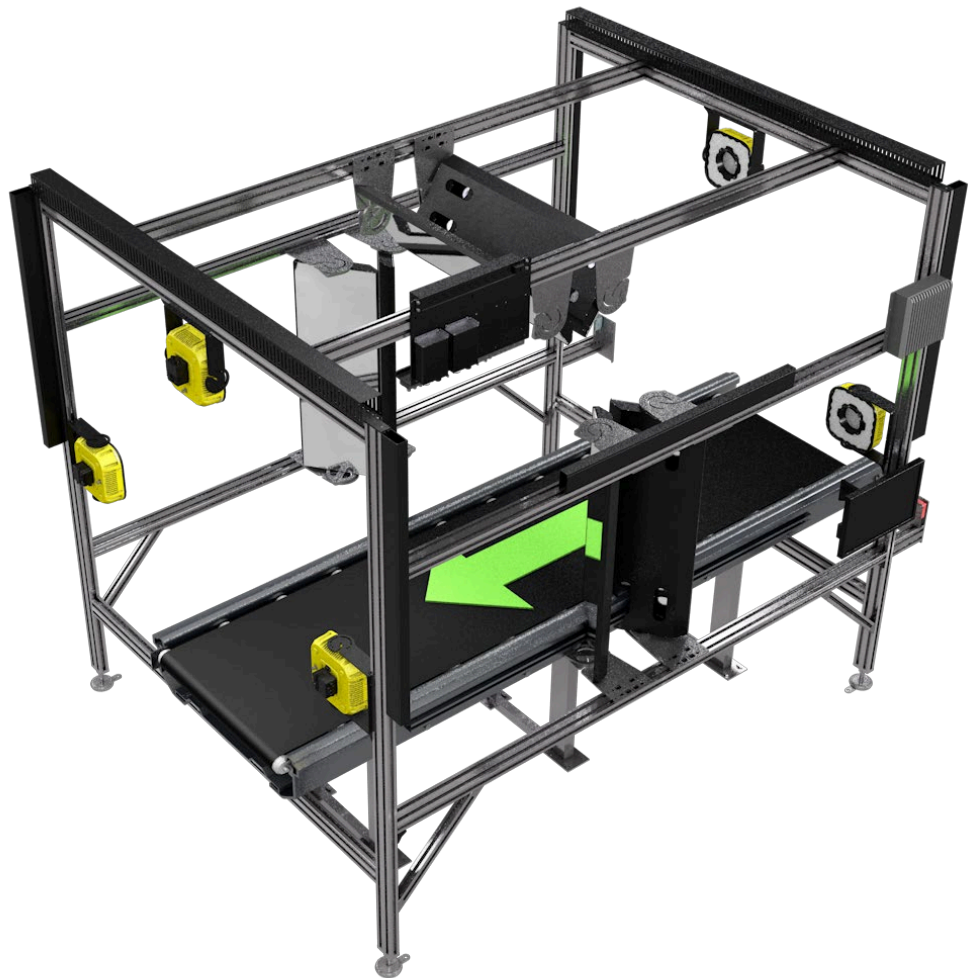


MVT Installation and Commissioning Guide



8/1/2025

v5.0

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Version History

Version History

The following updates were made:

v5.0 – 1 August 2025

New

- Added the EI-A3 to replace the RTM PC
- Added DataMan Bottom Side installation instructions to the Appendix

v4.0 – 7 October 2024

New

- Installation images
- Consolidated variants to mirrored and mirrorless

Updates

- Heron light name changed to HPIT
- Order of installation steps
- Part names made generic instead of specific to a variant

v3.0 – 23 August 2024

New

- Installation images
- Steps for installing the screw into the HPIT lights and mirrors
- Appendix for installing dimensioners

Updates

- CIO panel installation location
- U-bracket installation information

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1 Introduction

The purpose of this manual is to provide system installers with the information needed to install and commission the standard Modular Vision Tunnel with DataMan 380s.

The Modular Vision Tunnel with DataMan 380s includes an adjustable Robotunits frame to read barcodes on the sides or tops of objects on the conveyor. With these standardized parts, the Modular Vision Tunnel with DataMan 380s simplifies the assembly of readers, brackets, and framing.

Variations of the Modular Vision Tunnel with DataMan 380s are available for you to customize based on your application requirements, including belt speed and height coverage. The Cognex Modular Vision Tunnel with DataMan 380s Installation guide includes these systems: the **DM380-MVT-6-10-500**, **DM380-MVT-6-10-700**, **DM380-MVT-6-13-700**, **DM380-MVT-6-13-900**, and **DM380-MVT-6-13-1100**, a reference to their respective conveyor-width-coverage maximums.

These systems are similar mechanically, but the **DM380-MVT-6-10-500** and **DM380-MVT-6-13-700** systems do **not** include mirrors. These systems will have four or six readers, depending on if the tunnel is justified/side-aligned or not.

How to Use This Manual

2 How to Use This Manual

Throughout this manual, Warnings, Cautions, and Notes are used to draw your attention to important information in the body of the text. It is important to pay attention to the content provided under these headings.

The following symbols indicate safety precautions and supplemental information:



WARNING: This symbol indicates a hazard that could cause death, serious personal injury or electrical shock.



CAUTION: This symbol indicates a hazard that could result in property damage.



Note: This symbol indicates additional information about a subject.



Tip: This symbol indicates suggestions and shortcuts that might not otherwise be apparent.

3 Safety

When performing installation, system troubleshooting, or maintenance, be sure to take precautions to ensure safety and to avoid equipment damage. Make sure to review the Safety section before starting any work on the Cognex Modular Vision Tunnel with DataMan 380s.

3.1 Warnings and Notices



WARNING: Failure to follow instructions may cause serious injury or equipment failure.

- Do not attempt to service or repair the Cognex reader components. Return components to Cognex for service.
- Do not permit anyone other than Cognex Corporation or its approved partner companies to service, repair, or adjust the components.
- Do not operate the tunnel if any components are damaged or if the component covers or seals are missing or damaged.



Note: For the most up-to-date regulations and conformity information, please refer to the Cognex online support site:
<http://support.cognex.com>

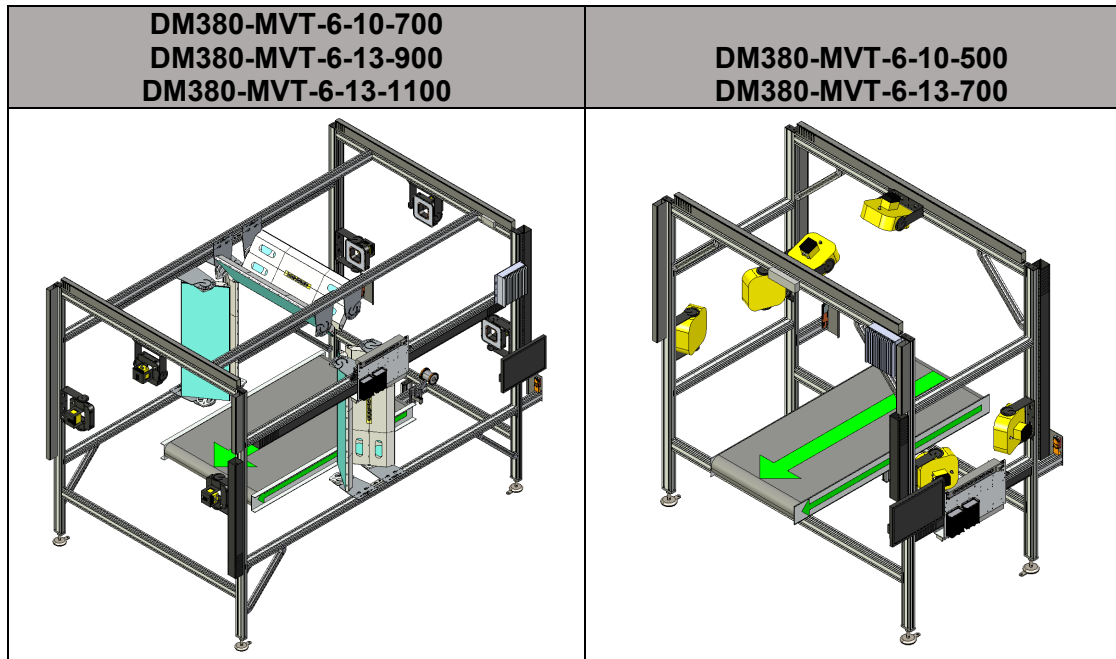
System Overview

4 System Overview

This section provides a physical overview of the Modular Vision Tunnel with DataMan 380s, including components of the installation kit.

The Modular Vision Tunnel with DataMan 380s consists of readers mounted on an adjustable Robotunits frame, one photo eye, and one Cognex I/O (CIO) kit. Mirrors are included with certain variants.

Completed Assembly



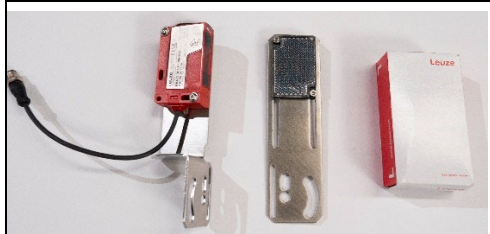
4.1.1 Modular Vision Tunnel with DataMan 380s Components

The Modular Vision Tunnel with DataMan 380s sub-assembly, includes the:

- DataMan 380s
- HPIT Lights
- Hybrid Switch
- CIO Bracket
- Photo Eye
- Mirrors (**if applicable**)
- EI-A3
- Encoder
- Grounding Kit

The complete solution includes all connecting cables. All CIO components are preassembled onto a bracket before shipping to your facility.

System Overview

Image	Description	Part Number	Qty.
	DataMan 380 with HPIT Light (mirrorless)/ SVL Light (mirrored)	DM3816-25- MVT13-S	4-6
	Hybrid Switch	CIO-HS-4	1
	CIO Base Kit	CIO-BASE-8A- 2	1
	Photo Eye	LST- PHOTOEYE- PB	1

System Overview

Image	Description	Part Number	Qty.
	Mirrors (if applicable)	DMA- MIRROR- 1000-WF (may vary)	6
	EI-A3	EI-A3- TUNMGR (may vary)	1
	Encoder	LST- ENCODER- 000	1
	Grounding Kit	LGM-FRAME- CBL-GND	1

5 Installation

You can assemble the Modular Vision Tunnel with DataMan 380s with the included kits, organized and separated for quick installation. While variations may be chosen based on minimum-required mil sizes, belt height, belt width, and belt speed, the installation is similar across all variants.

5.1 Getting Started

Before you begin work:

- Verify the conveyor specifications, including height and width
- Ensure that your work area is clean and free from debris
- Open shipping boxes and identify the system assemblies (compare with the Bill of Material (BOM))
- Gather all tools and equipment
- Review the installation instructions



Note: If your shipping boxes are missing parts required for installation, contact your site Project Manager or Control Lead/Engineer.

5.2 Tools Required

Tools needed for the Modular Vision Tunnel with DataMan 380s installation:

- Metric Allen wrench sets (2.5 mm, 5 mm, and 6 mm sizes are used for installation. T-handles with a ball end are recommended.)
- Spirit/bubble level
- Square
- Tape measure
- Flush-mount or diagonal cutters
- Screwdriver set (large and small sizes)
- Small flathead screwdriver
- Drill
- Bag of zip ties (recommended for install but not included)
- A laptop PC
- Wire Duct cutter
- Robot Unit T-nut Key
- X-coded male to RJ45 Male Cable
- Installation site station IDs (tunnel names) and IP addresses provided by your site Control Lead/Engineer

Installation

5.3 Frame

The location of the Modular Vision Tunnel with DataMan 380s is directed in the site layout drawings. If you have any questions about the location, consult the Project Manager or Control Lead/Engineer. This guide uses names and figures located in the DriveWorks drawings package. Refer to those drawings for assembly specific to your project.

Complete Robotunit Framing

DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

Check the Bill of Materials (BOM) to ensure you have the correct materials and the correct number of parts. If anything is missing, contact your Project Manager (PM).

Lay out and organize all the included items in a clear area. Organize the Robotunits framing by length and keep the nuts and screws in their own separate bags. Lock out the conveyor belt before starting work.



Tip: Organization is the most important part of installation.

WARNING: Make sure to use the **conductive** T-nuts and bolts to properly ground the framing.



Installation

5.3.1 Robotunit Unboxing

The Modular Vision Tunnel with DataMan 380s comes in separate boxes for the framing, assembly pieces, photo eye, lights (if applicable), mirrors, and Cognex I/O (CIO) kit. The box with the framing is heavy, so take care when carrying and moving it. You will need a Philips-head screwdriver to remove the wood pieces to access the framing. Check the BOM and parts to ensure all items are included.

All the systems are assembled similarly, but there may be additional extrusions for support and positioning. Use the project drawings for proper placement and measurements.

5.4 Frame Assembly

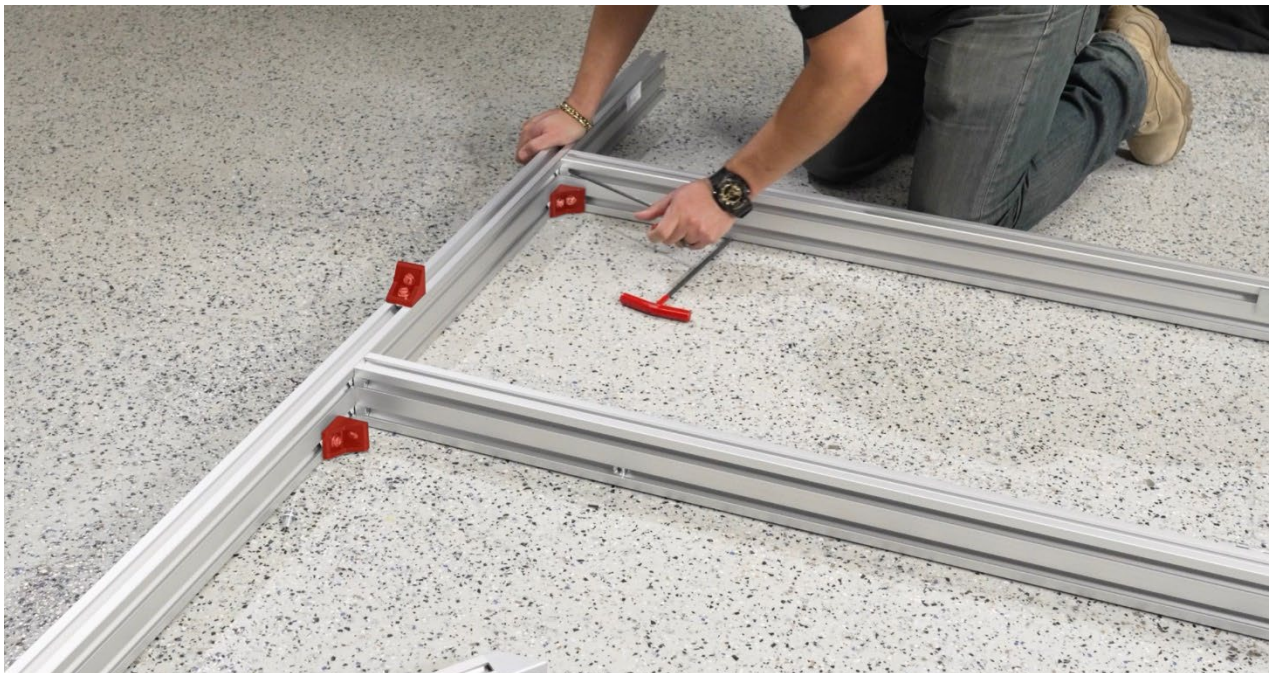
5.4.1 Assemble the Frame



Note: The pre-set gussets and spacers must be on the inside of the framing/toward the conveyor for proper reader and mirror placement.



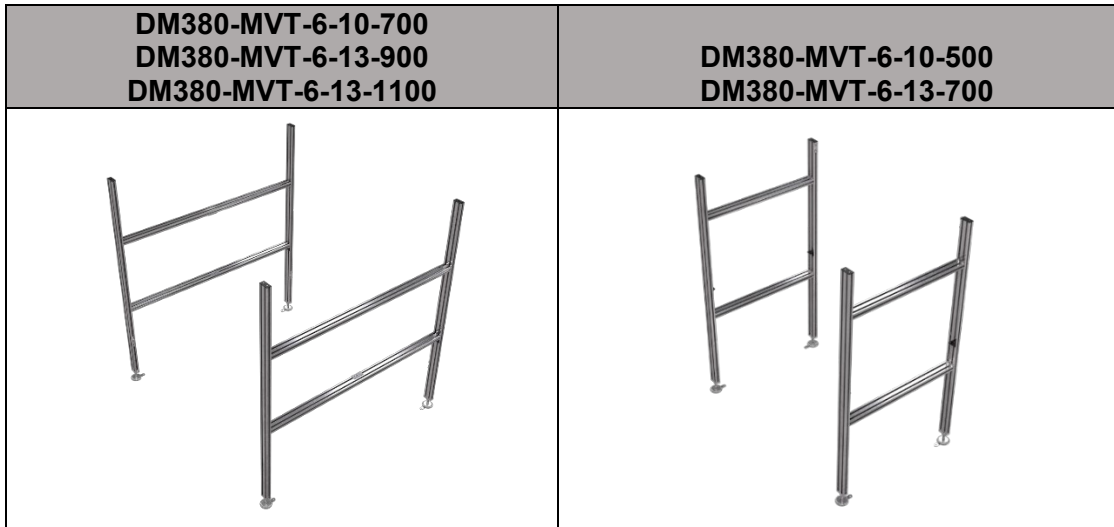
WARNING: Do not adjust the pre-set gussets or the mirror spacers.



Installation

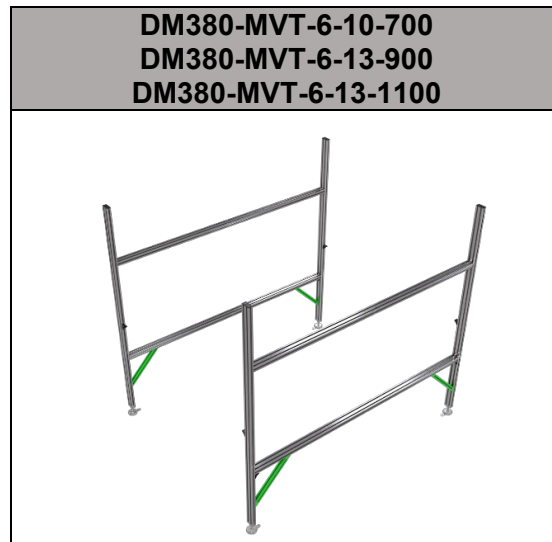
1. Construct the sides of the frame by connecting the **Vertical** bars (4) to the **Lower** (2) and **Upper DOT** (2) bars with fasteners.

Note: The gussets should face each other.



2. **DM380-MVT-6-10-700, DM380-MVT-6-13-900, DM380-MVT-6-13-1100:** After you confirm that the heights and measurements of the bars are correct, connect the **Angled Supports** (4) to the **Lower DOT** and **Vertical** bars in the outer channels.

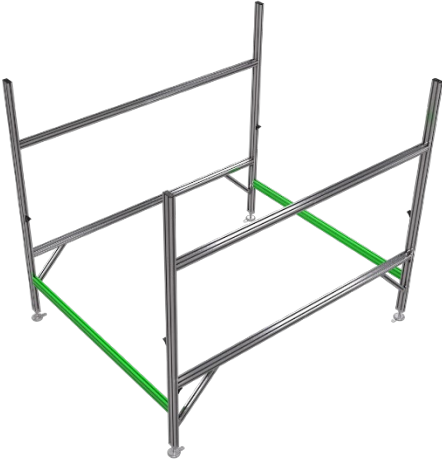
Note: The **DM380-MVT-6-10-500** and **DM380-MVT-6-13-700** angled supports will be installed later.



Installation

- Under the conveyor, connect the **Lower** crossbars (2) to the **Vertical** bars with fasteners.

Note: These have no pre-set hardware on them. There are other equal-length bars with pre-set hardware that will be used in the next steps.

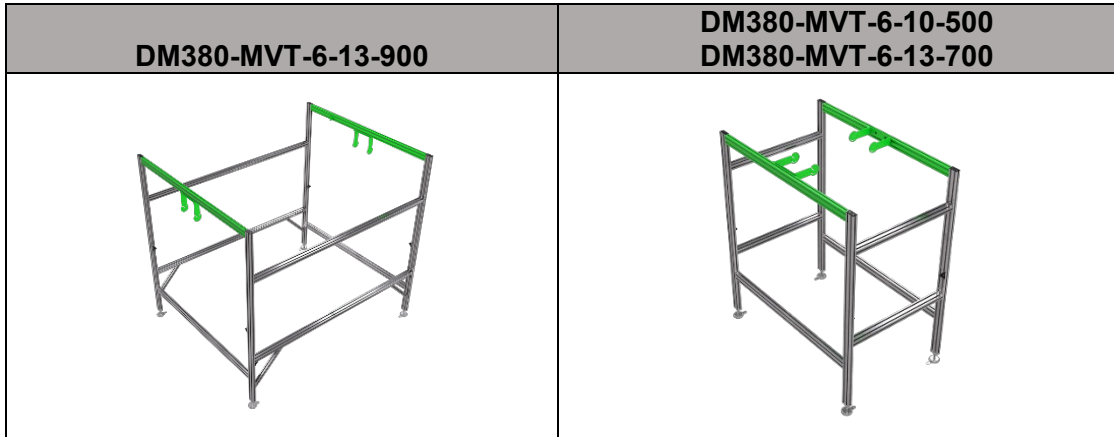
DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

- Attach the **U-brackets** (2-4) to the **Upper** crossbars, flush against the gusset.
- Note:** The orientation of the U-bracket slot should point away from the conveyor.



Installation

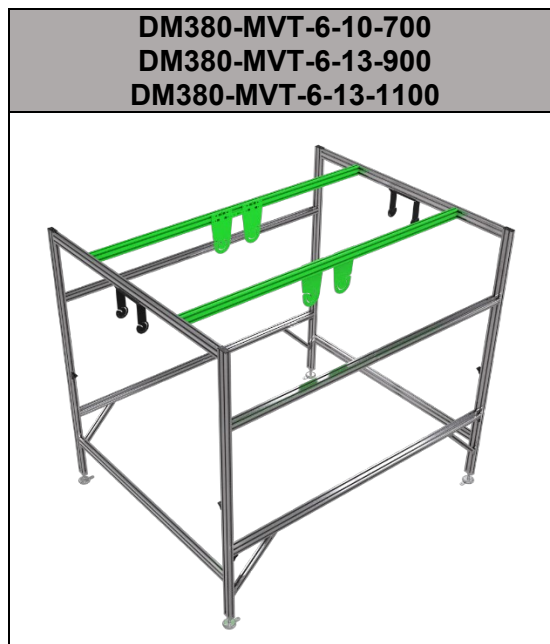
5. Connect the **Upper** crossbars (2) to the **Vertical** bars with fasteners.



6. Attach the **Mirror** brackets (4) to the **Top DOT** bars on both sides of the spacer.
Note: The orientation of the mirror bracket slot should point outwards.

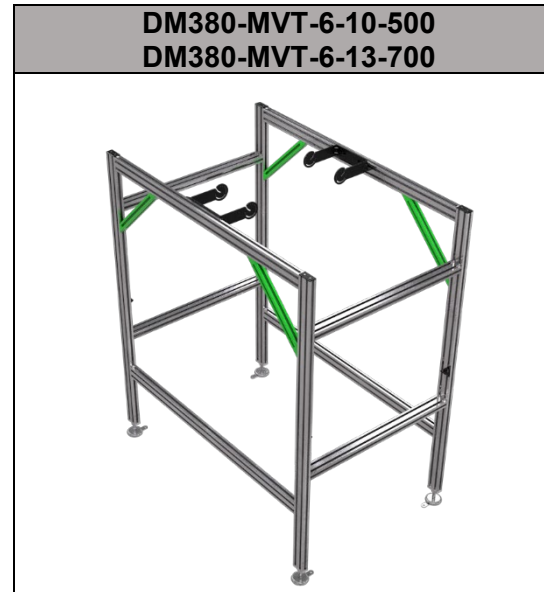


7. Connect the **Top DOT** bars (2) to the **Upper** crossbars with fasteners.



Installation

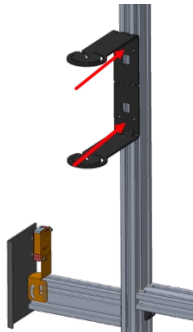
8. **DM380-MVT-6-10-500** and **DM380-MVT-6-13-700**: After you confirm that the heights and measurements of the bars are correct, connect the **Angled Supports** (4) to the **Top crossbars** and **Vertical** bars in the outer channels.



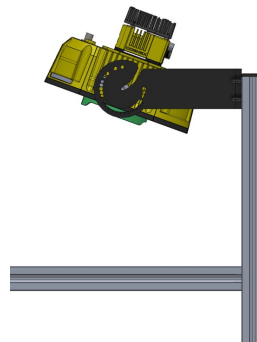
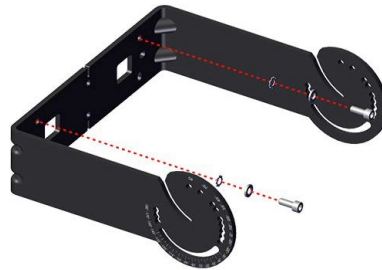
9. Attach the **U-brackets** (4) to the frame through the center holes, flush against the pre-set gussets with screws and nuts.

Note: The U-brackets are attached parallel or perpendicular to the conveyor and in the extrusion channel farthest from the conveyor, depending on your system (pictured). The “smile” should be towards the conveyor, and the slide-in should face away from the conveyor.

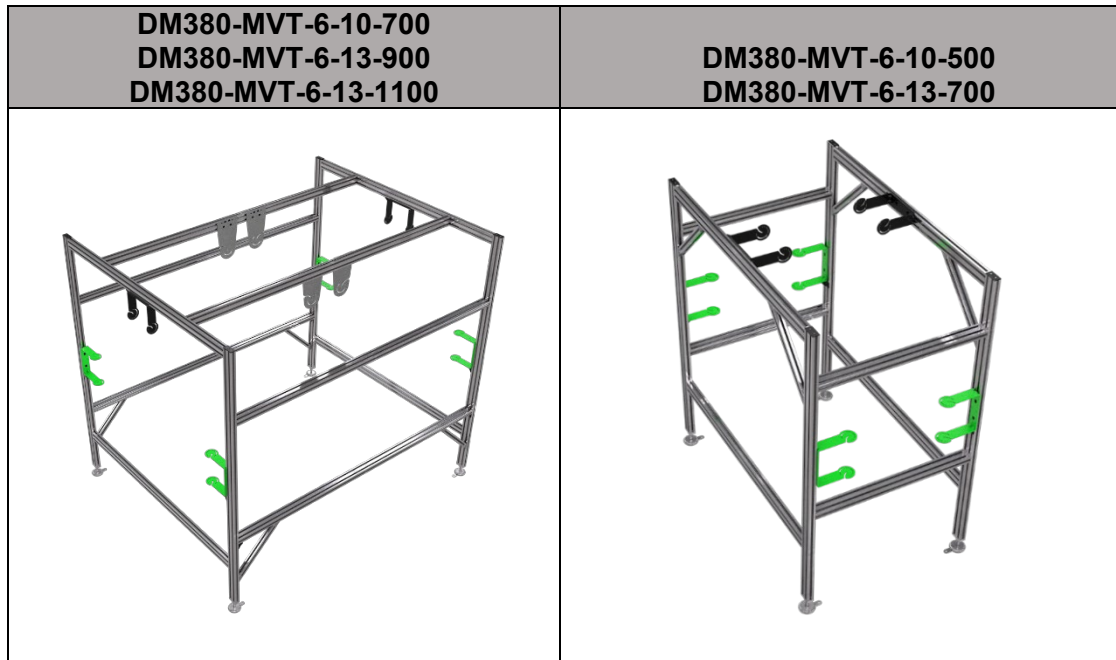
Side



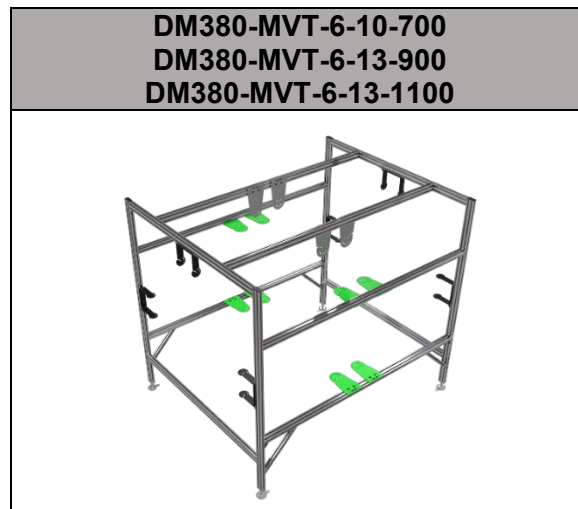
Top



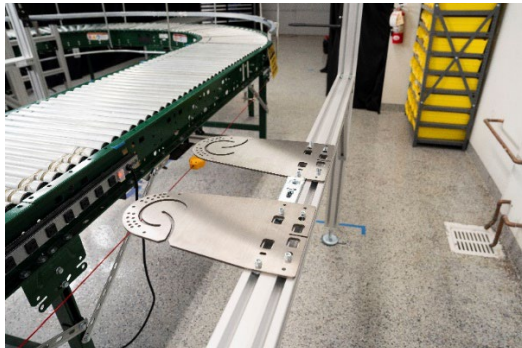
Installation



10. **DM380-MVT-6-10-700, DM380-MVT-6-13-900, DM380-MVT-6-13-1100:** Attach the **Mirror** brackets (8) to the **Upper** and **Lower DOT** bars at the pre-set locations with screws and nuts.

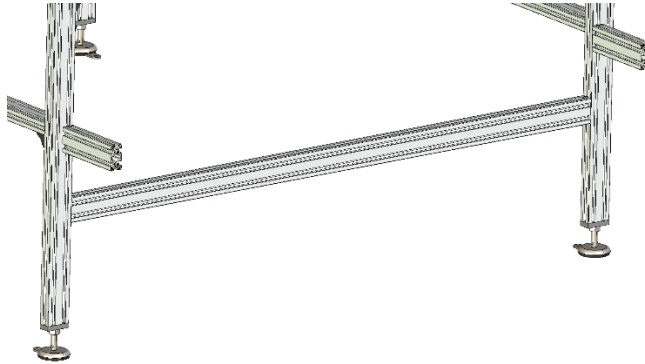


11. Use the pre-attached spacer to ensure proper placement and make flush.



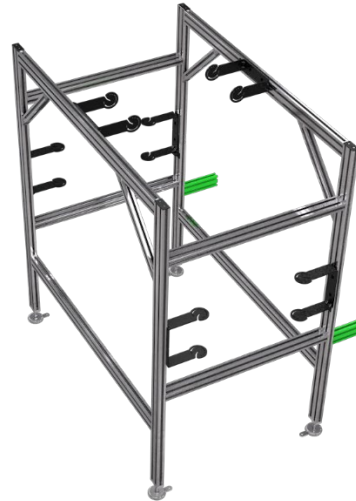
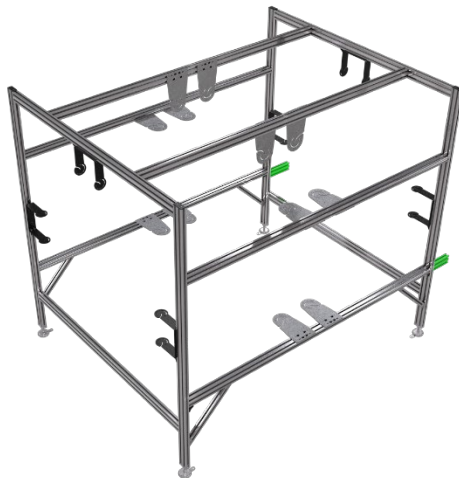
Installation

12. Connect the **Photo Eye** bars (2) to the **Vertical** bars with fasteners, facing upstream on the inside channel



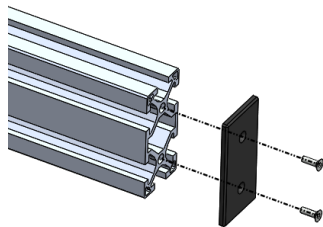
DM380-MVT-6-10-700
DM380-MVT-6-13-900
DM380-MVT-6-13-1100

DM380-MVT-6-10-500
DM380-MVT-6-13-700



13. Screw the end caps into the:

- **Encoder** bar (3) with end caps
- **Vertical** bars (4) with end caps



14. Level and square the frame.

Installation

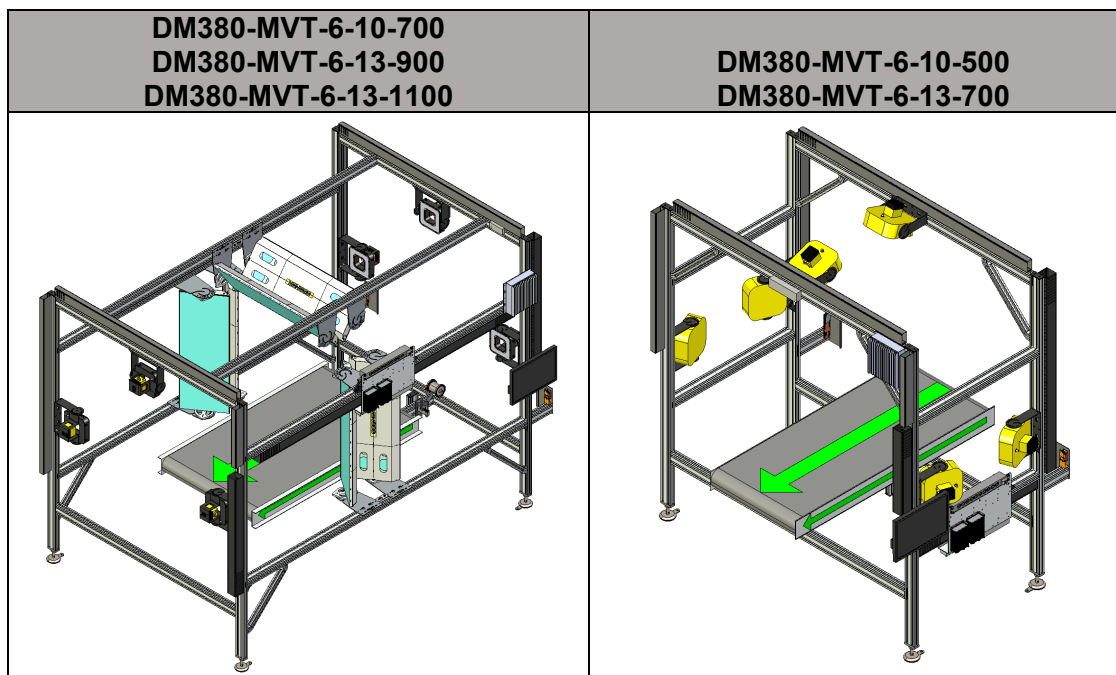
5.5 Installing Systems on the Framing

The **DM380-MVT-6-10-500** and **DM380-MVT-6-13-700** systems have similar components, but the **DM380-MVT-6-10-700**, **DM380-MVT-6-13-900**, and **DM380-MVT-6-13-1100** systems include six mirrors and longer wire ducts. Also, the U-brackets and readers are attached to the frame in slightly different locations.



CAUTION: The power supply wiring is different for Europe (10A) and North America (15A). Use the appropriate cables for your specific region. You must not power third-party products with the power supply.

Complete Frame Assembly with Systems



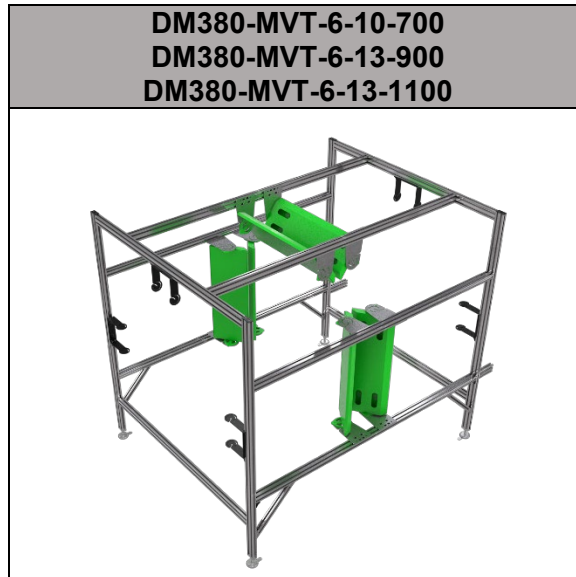
5.5.1 DM380-MVT-6-10-700, DM380-MVT-6-13-900, DM380-MVT-6-13-1100: Attach the Side Mirrors

1. Insert the set screw in the center hole of the mirror pivot that connects the mirrors to the U-bracket.



Installation

2. Slide the mirrors into the brackets at the correct angles (per your project's DriveWorks drawings).



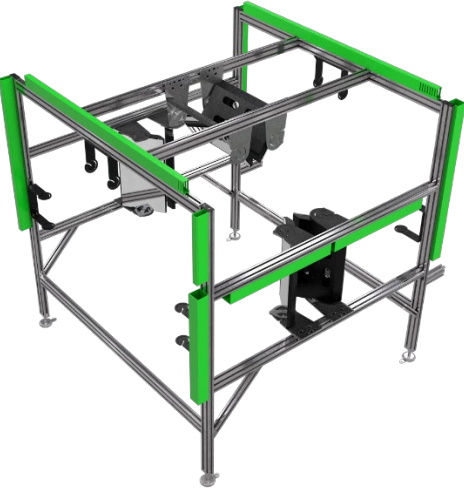
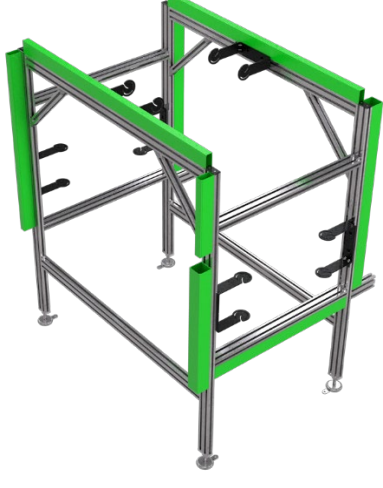
3. Use the set screws to tighten.



5.5.2 Attach the cable trays

1. Connect the cable trays with screws and nuts:
 - **Vertical** bars (5)
 - **Upper** crossbars (2)
 - **Upper** or **Lower DOT** bar (1-2) with CIO bracket

Installation

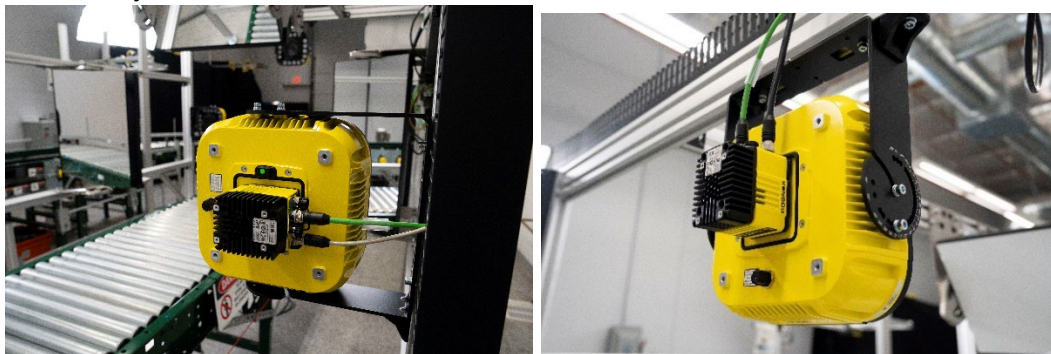
DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

5.5.3 Mount the Readers to the U-brackets

1. Insert the screw that connects the HPIT light to the U-bracket.



2. Connect all cables to the readers before mounting.
Note: Cables should always point toward the bracket mounting point, away from the conveyor.

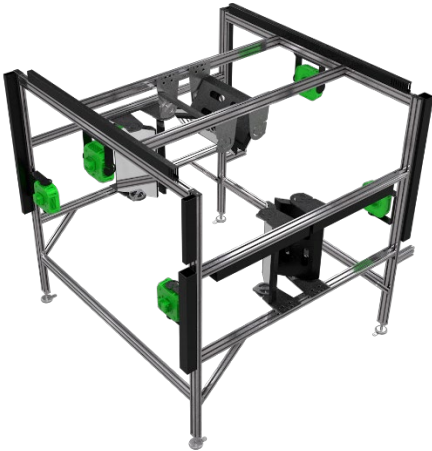
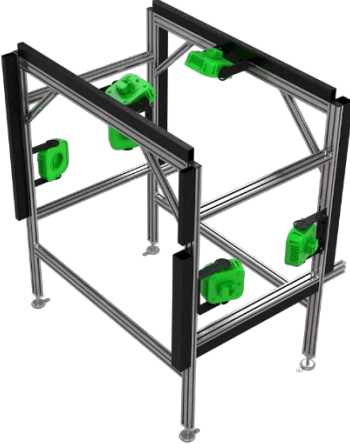


3. Slide the HPIT lights with the DataMan 380 readers into the U-brackets.

Installation

4. Insert the set screws at the correct angle, according to the drawings, and tighten.

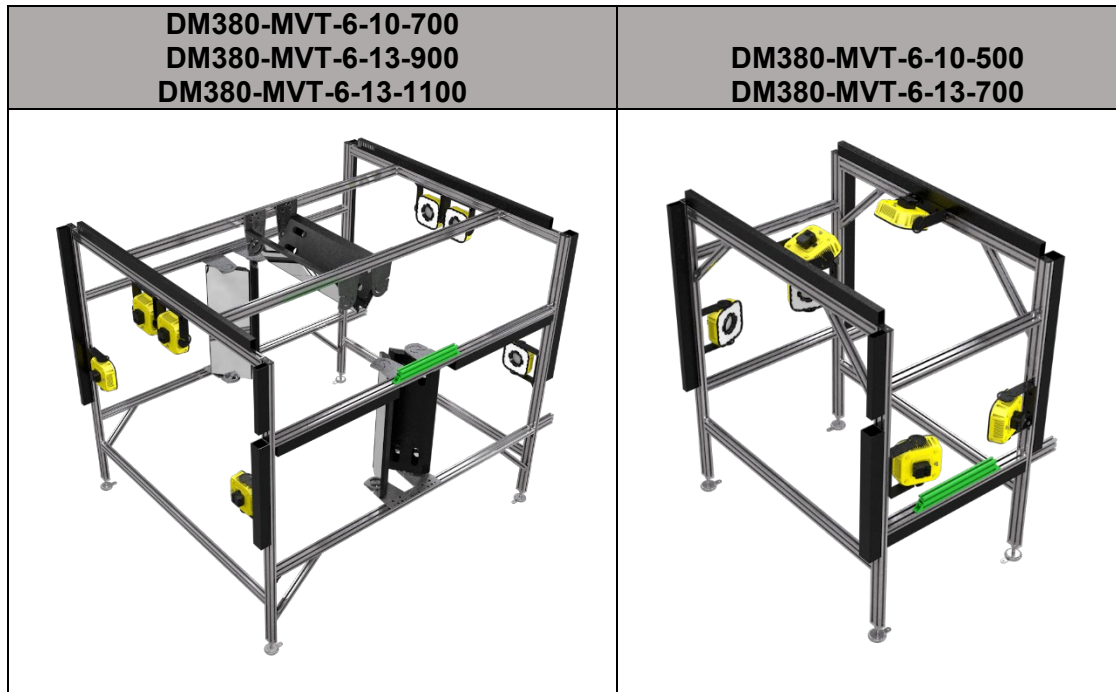


DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

Installation

5.5.4 Set up the Cognex I/O Solution

1. Attach the **CIO** bar (1) to the **Upper** or **Lower DOT** bar (depending on your variant) with gussets on the power side.



2. Install the CIO Base Kit with the included mounting hardware, according to the drawing.

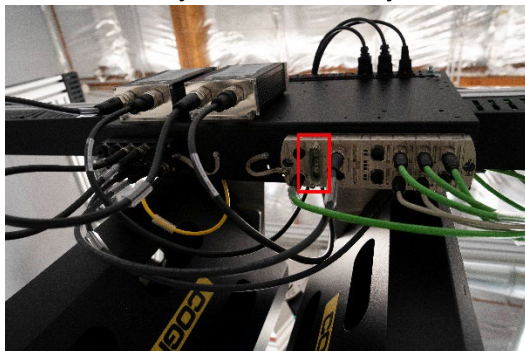


Note: The exact placement of the CIO Base Kit can vary, depending on the space and clearance constraints of your application. Check your DriveWorks drawings for proper placement.

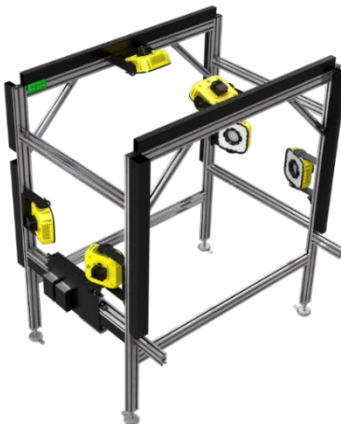


Installation

- Set the Rotary Dials on the Hybrid Switch to 0 0 0.



- Connect Master Breakout Board.

DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

- Connect additional Hybrid Switches to the framing, according to the DriveWorks drawings.

DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

Installation

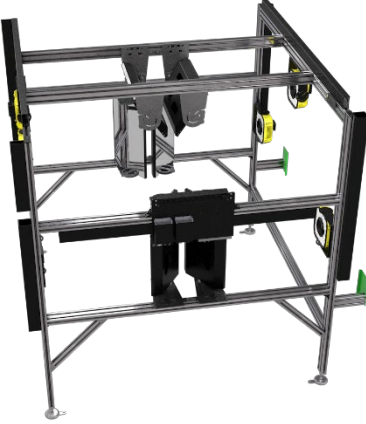
5.5.5 Attach the Photo Eye



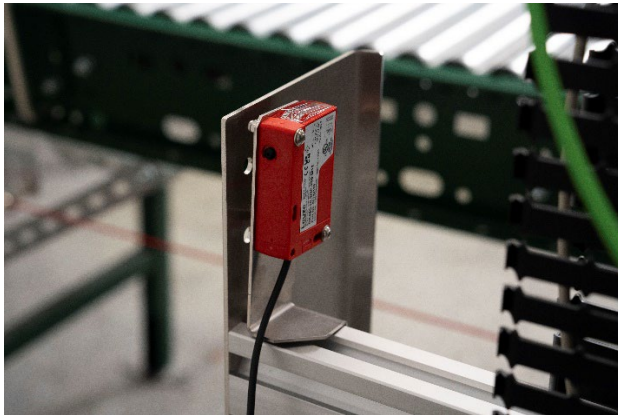
Note: If the customer provides the photo-eye signal, continue to the Wiring section.

The photo eye comes pre-mounted with the bracket, a short extension cable, and the screws to attach the bracket to the frame (from the Frame kit).

1. Attach the photo eye and reflector guards with screws and nuts to protect from box strikes.

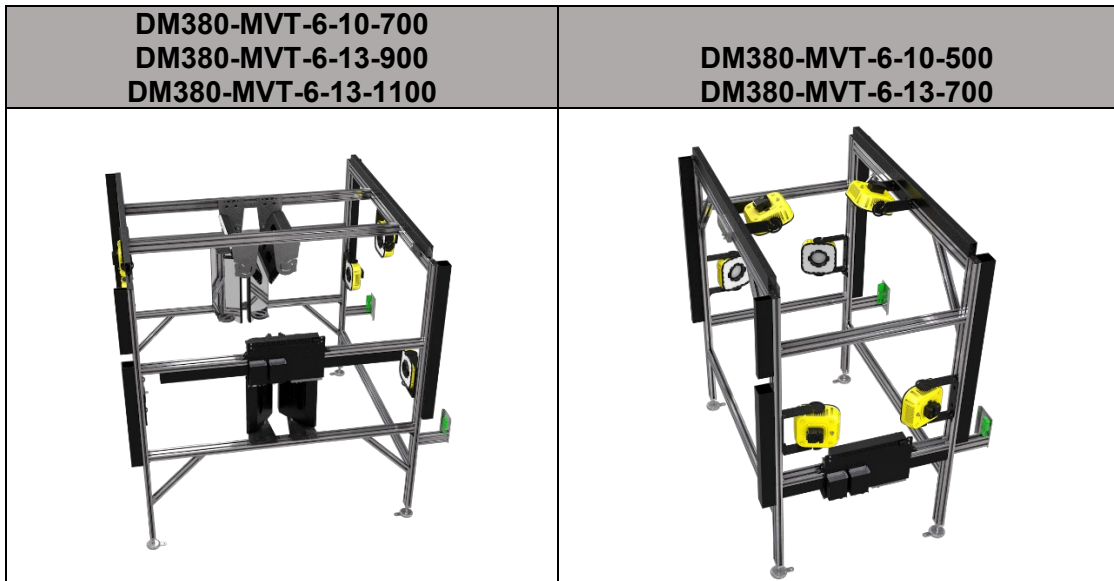
DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

2. Mount the photo eye to the **Photo Eye** bar with the included hardware.
Note: Make the photo eye bracket edge flush against the edge of the extrusion.



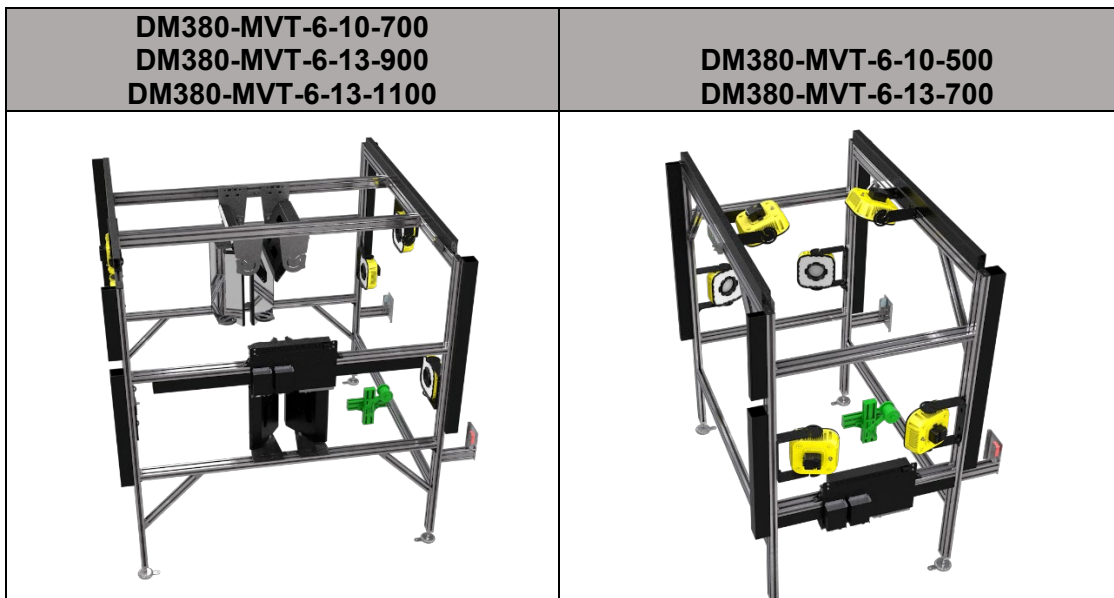
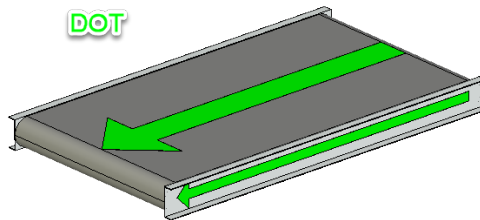
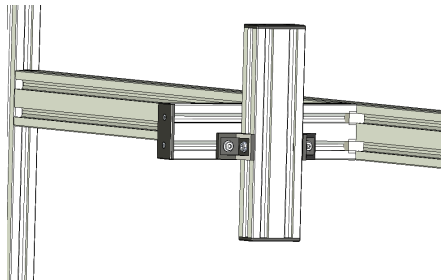
3. Mount the reflector opposite, and slightly offset, from the photo eye.

Installation



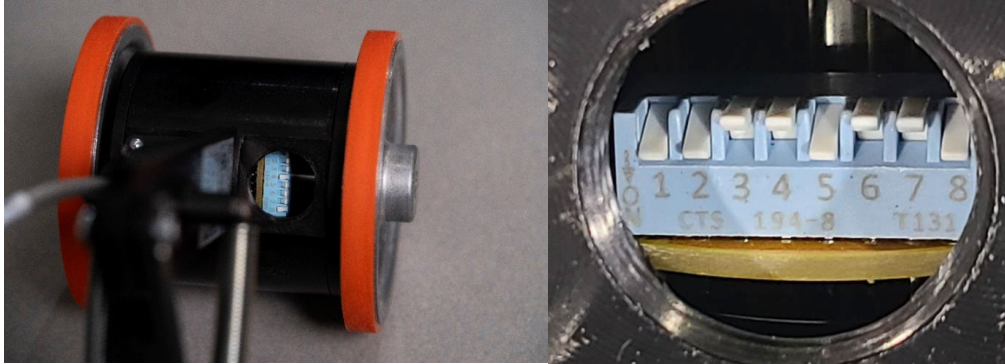
5.5.6 Attach the Encoder

1. Connect the horizontal **Encoder** bar to the inside of the **Lower** crossbar (upstream) with fasteners.
2. Connect the vertical **Encoder** bar to the horizontal **Encoder** bar with gussets.

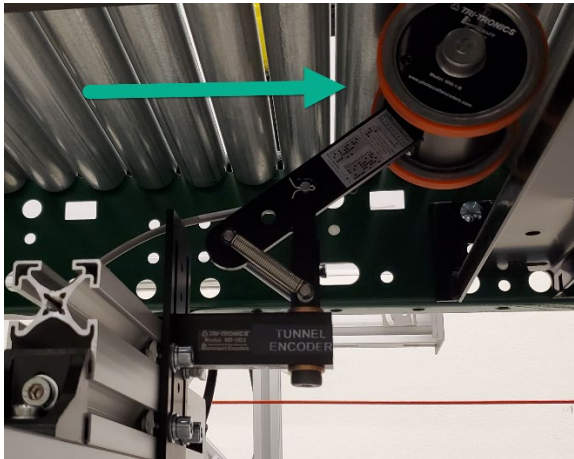


Installation

3. Assemble the Tri-Tronics encoder according to the manufacturer's instructions.
4. Verify that the encoder is correctly configured for a resolution of **240 pulses/revolution** and that the output is set to **PNP**.



5. Mount the Tri-Tronics encoder to the vertical **Encoder** bar with the included hardware.
6. Adjust the encoder to properly contact the underside of the conveyor, oriented so it doesn't bounce (pulled by the conveyor, not pushed).



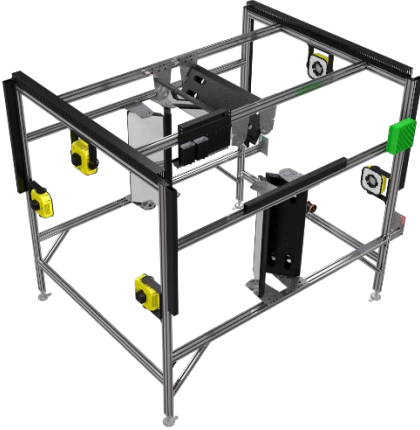
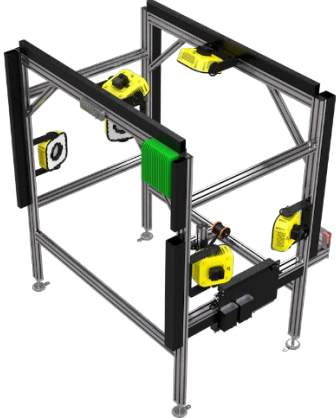
Installation

5.5.7 Attach the EI-A3

1. Attach the EI-A3 to the **Vertical** bar and **Upper** crossbar with screws and nuts on the power side.



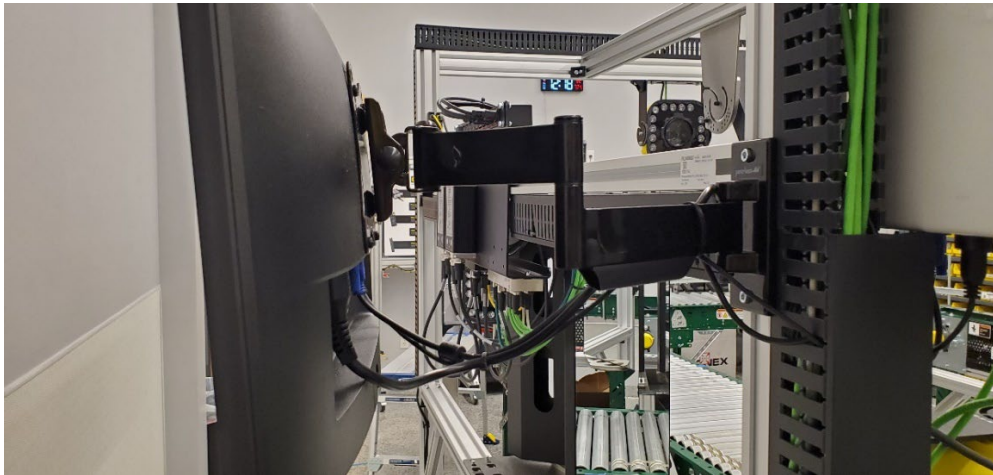
Note: The EI-A3 and the monitor are positioned downstream for two-reader systems and upstream for one-reader systems.

DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700
	

Installation

5.5.8 Attach the Monitor

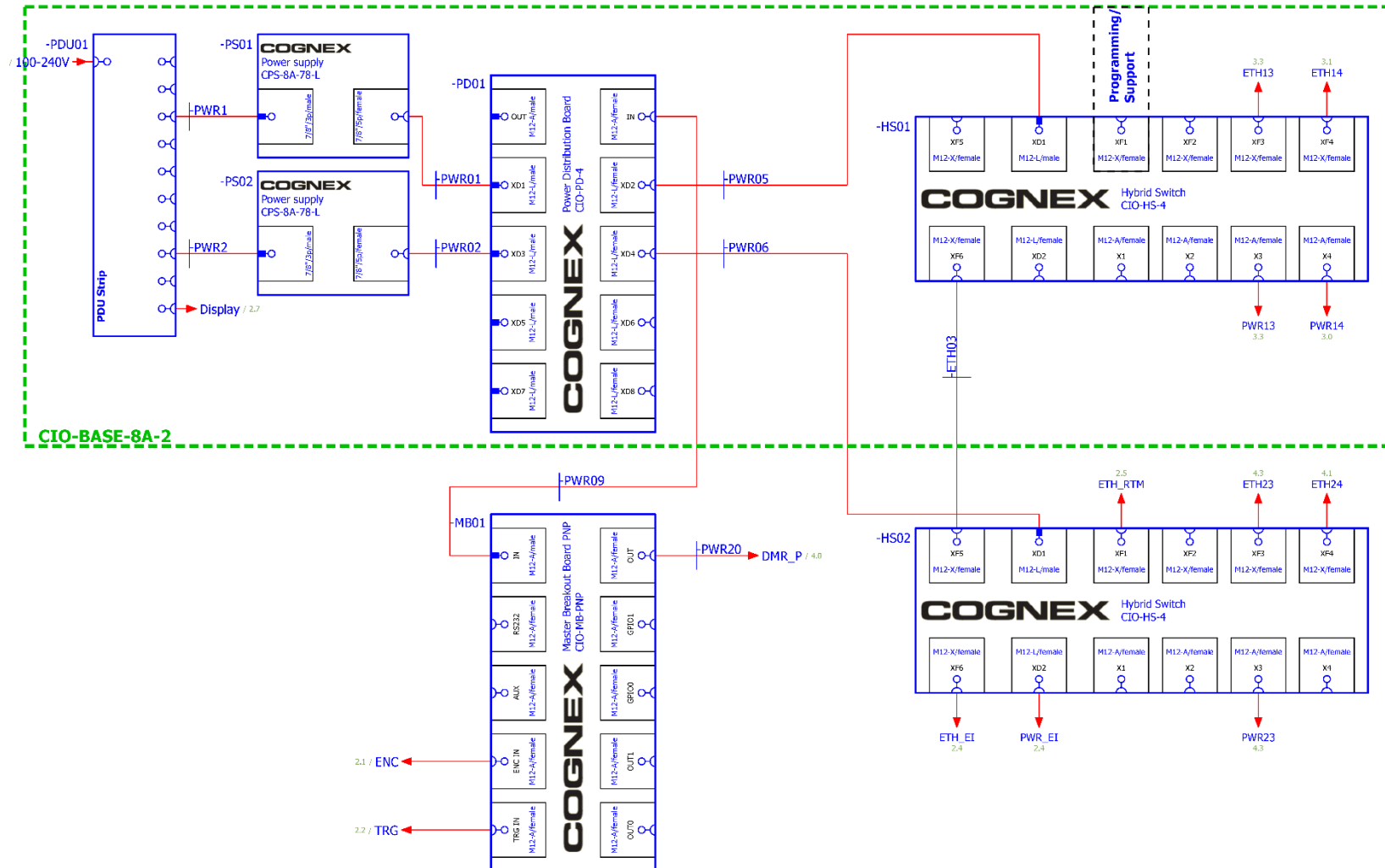
1. Attach the monitor mounting arm below the EI-A3 on the **Vertical** bar on the power side and out of the way of the conveyor.
2. Prepare the back of the monitor:
 - a. Remove the pre-mounted standard bracket.
 - b. Insert two bolts and slide the monitor onto the mounting arm.
3. Insert two additional bolts to secure the monitor to the mounting arm.
4. Connect the power and display cables.



DM380-MVT-6-10-700 DM380-MVT-6-13-900 DM380-MVT-6-13-1100	DM380-MVT-6-10-500 DM380-MVT-6-13-700

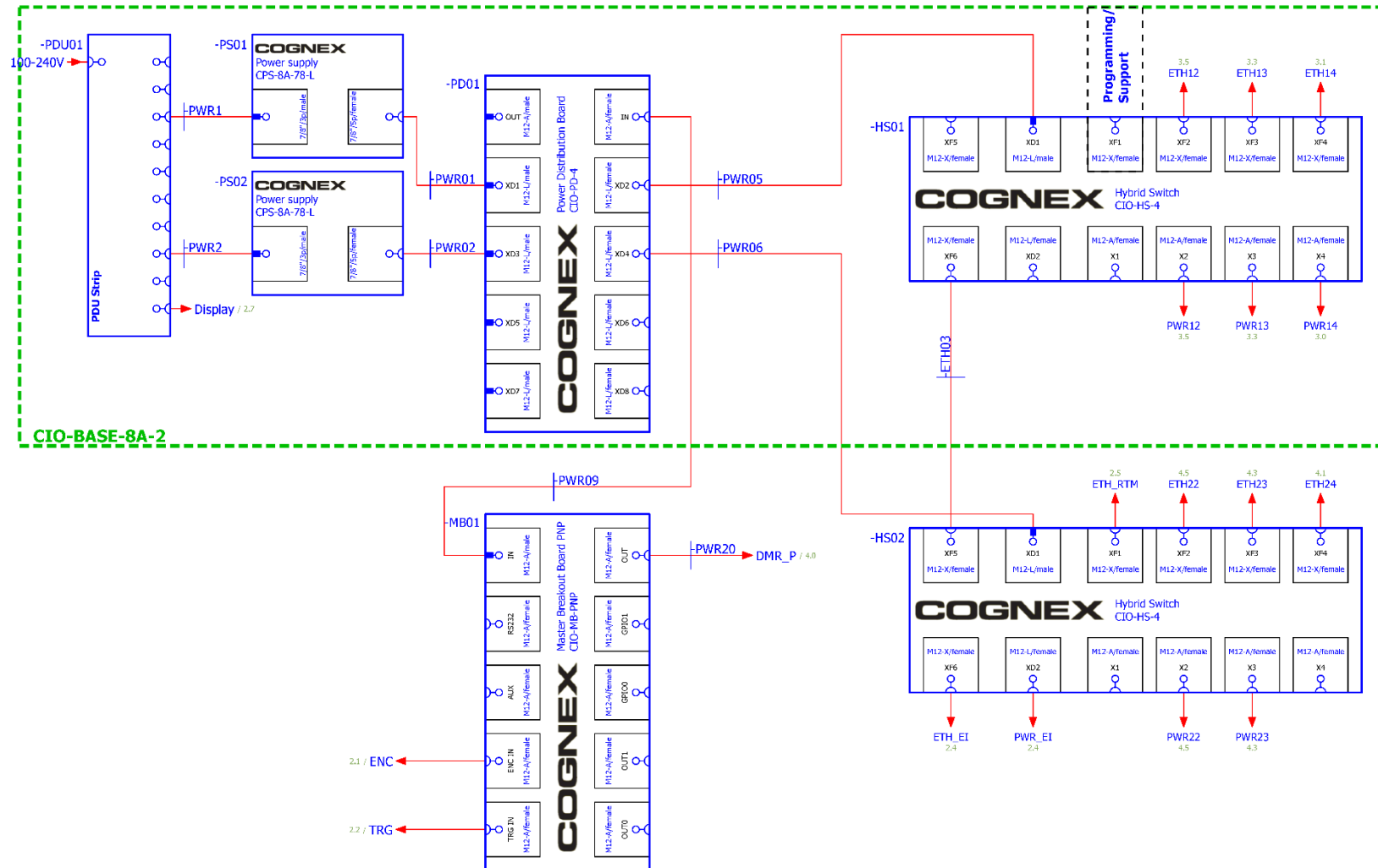
Installation

Wiring Diagram – 4 Reader



Installation

Wiring Diagram – 6 Reader



Installation

5.5.9 Route the Cables Through the Wire Duct

1. Tidy up all loose cables.
2. Use the Wire Ducts to route and hide the cables neatly.
3. Use zip ties to keep the wiring tidy and out of the conveyor belt's path.



Note: After assembly and wiring are complete, square the tunnel to the conveyor, according to the DriveWorks measurements.

5.5.10 Power On the System

1. After all wiring and cables are connected, plug the power strip into a power outlet.

Note: Check that the switch is ON and the power light on the EI-A3 is lit.

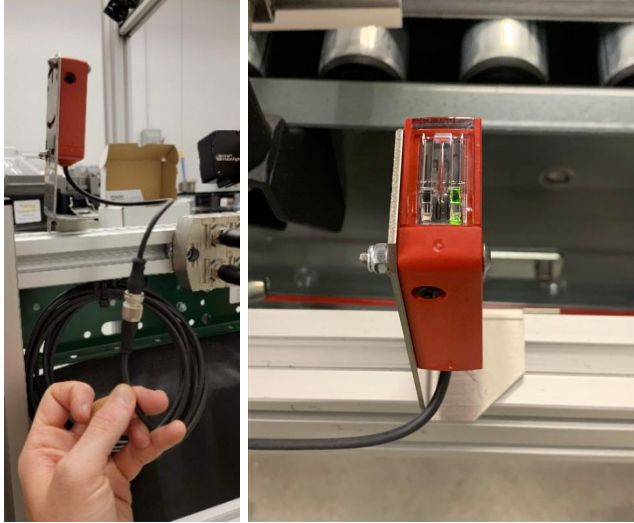


2. Turn on the monitor.
3. The readers and EI will boot automatically.

Installation

5.5.11 Align and Train the Photo Eye

1. Connect the Power cable to the Photo-Eye Extension cable.
The green indicator light will turn on.

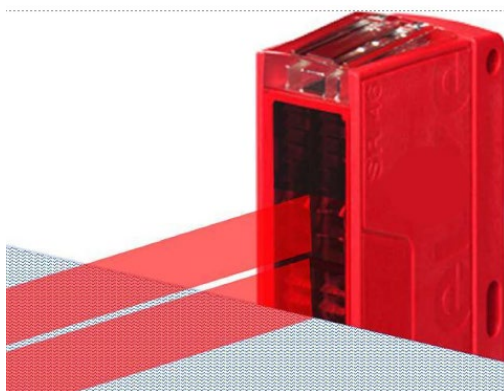


2. Position the solid alignment aid in front of the reflector and use the short side to check the correct height of the reflector mounting.

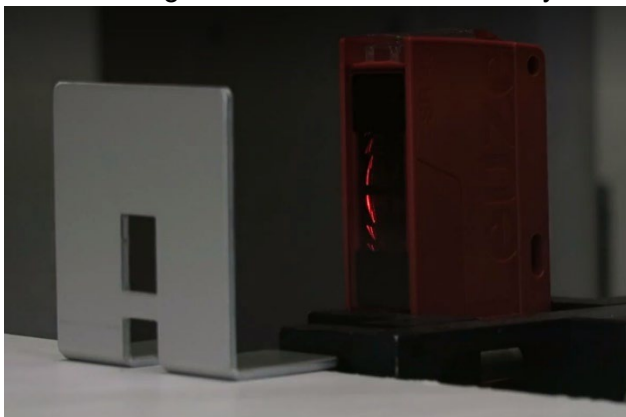


The beam is split and must be aligned correctly with the help of the alignment aid with the solid bridge.

Installation

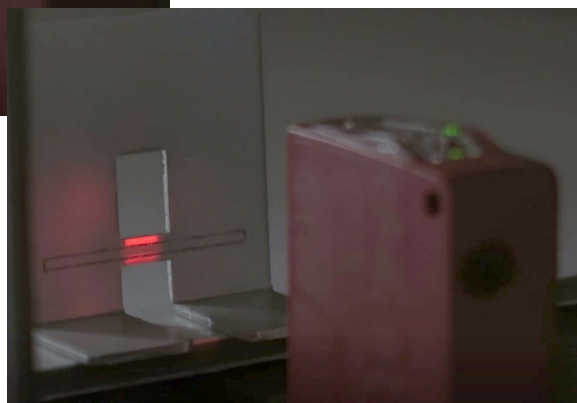


3. Place the alignment bracket on the conveyor directly in front of the photo eye.



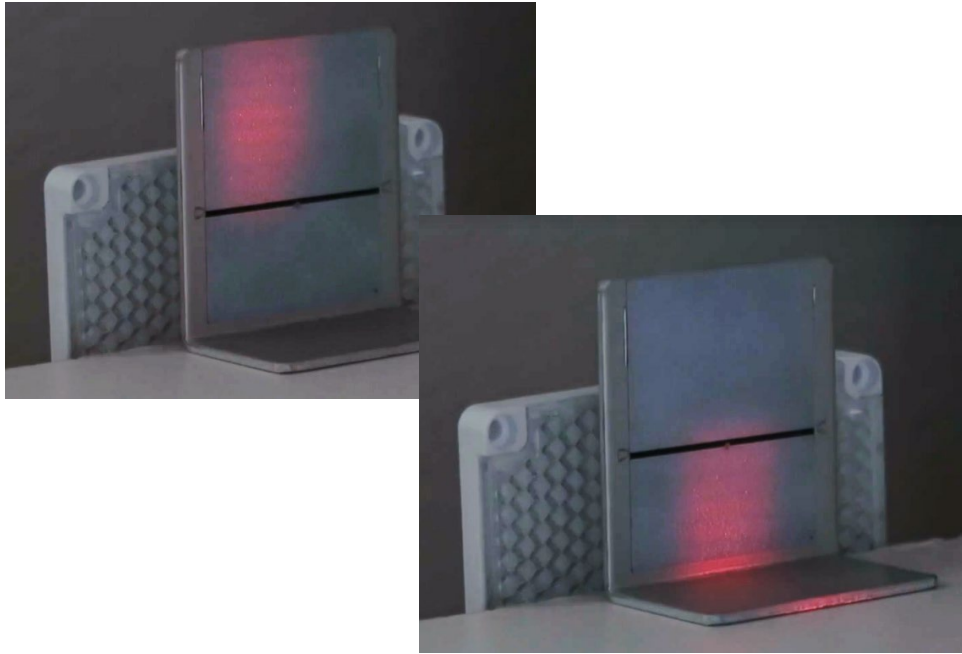
4. Adjust the position of the sensor to align the gap of the beam at the bridge of the alignment bracket.

In this example, the initial alignment is too high. The sensor needs to be lowered to show the gap aligned within the bridge on the alignment aid.



Installation

5. Adjust the height of the PE sensor so that the beam is entirely below the solid black line of the other alignment aid placed near the reflector.



5.5.12 Photo Eye Training

1. Remove both parts of the alignment set to train the photo eye for the desired precision.
2. Press the teach button of the sensor for the appropriate amount of time for the specs of this installation:
 - a. 2 to 7 seconds to train it to detect objects $\geq 10\text{mm}$
 - b. 7 to 12 seconds to train it to detect objects $\geq 5\text{mm}$



5.5.13 Test for Polarity

1. Check that the orange light on top of the photo eye is off.
2. Block the beam with your hand.
3. If the orange light turns on, continue to the next section.
4. If the orange light does not turn on, press and hold the teach button for 12 seconds.

Installation

5.5.14 Grounding the Frame



Image	Description	Qty.
	Grounding Cable 1.5m, Ring, T M8/M6	1
	Grounding Cable 0.25m, Ring, T M8/M8	1
	M8 Screw	5
	M8 Washer, Flat	5
	M8 Conductive T-nuts	5
	D6 Tooth Lock Washer	1
	M6 Locknut	1
	M6 Washer, Flat	1
	M6 Screw	1
	D8 Tooth Lock Washer	8
	M8 Split-Lock Washer	5

Installation

To ground the Modular Vision Tunnel with DataMan 380s, you must use the **conductive** nuts, the toothed washers, and the bridge connector. One cable bridge will connect the extrusion to the floor or conveyor ground.

Components that must be grounded:

- EI Enclosure
- Hybrid Switch
- Master Breakout Board
- Wire Strap on the CIO Bracket

Grounding the components

1. On the nearest extrusion, insert one M8 **conductive** nut.
2. Screw in the cable bridge pieces in this order:

Order	Image	Description
1		M8 conductive nut
2		Toothed Washer
3		Cable Bridge
4		Flat Washer
5		M8 Screw

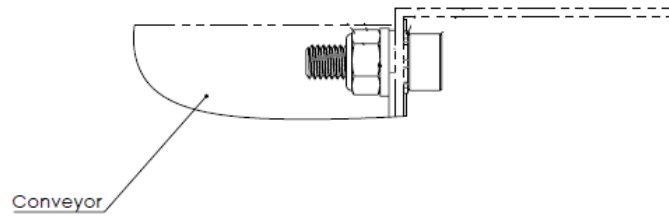
3. Connect the other end to the client's ground (on the conveyor or floor with a grounding screw).



WARNING: The client will install the final bridge to their grounding point.

Installation

Mounting on Grounding point



Appendix A Parts List

Appendix A Parts List

The referenced parts list is below.

Item Tag	Description	Quantity
1.0	Vertical bars	2
5.0	Vertical bars	2
10.0	Upper crossbar	1
12.0	Upper crossbar	1
18.0	Lower crossbars	2
21.0	Lower, Upper, Top DOT bars	6
23.0	Photo Eye bar	2
24.0	Encoder bar	1
25.0	Loose Parts	1

Item No.	Part ID	Description	Quantity
1	1236476	450mm Corner Gusset Assembly	4
2	PIN_4530	Cable Block	15
3	188704	11 in. Nylon Cable Tie, Pack of 100	1
4	IBS_M06x018	M6x18 Socket Head Cap Screw	50
5	BLS_006	M6 Flat Washer	75
6	TIN_4596	Drop-in Nut M6, Conductive	75
7	IBS_M06x016	M6x16 Socket Head Cap Screw	25
8	IBS_M05x016	M5x16 Socket Head Cap Screw	6
9	BLS_005	M5 Flat Washer	6
10	TIN_4595	Drop-in Nut M5, Conductive	6

Appendix A Parts List

Item No.	Part ID	Description	Quantity
11	138756	Encoder Hardware	2
12	CAP_4081	End Cap, 40x80	8
13	FAS_4083	Fastener Kit 40x80, Conductive	4
14	FAS_4043	Fastener Kit 40x40, Conductive	4
15	CAP_4041	End Cap 40x40	1
16	163958	Hybrid Switch Module Hardware	2
17	163981	PD/MB/PB Module Hardware	1
18	PIL4180_SNN_520	40x80 Extrusion, Lean Line	1
19	GUS_4501	Corner Bracket 40/50 Kit	4
20	PIL4180_SNN_300	40x80 Extrusion, Lean Line	1
21	168969 (FAS4083 IBS+TIN)	Fastener Kit 40x80, Conductive, Screws & T-nuts Kit	40

Appendix B Fixation Kit

Appendix B Fixation Kit

To mount the frame to the floor, you will need the following recommended hardware:



CAUTION: Make sure the fastening bracket is in place and that you mark the area on the floor for the Customer to install/drill these kits.



Note: After the framing is completed, the site's personnel are responsible to bolt the Modular Vision Tunnel with DataMan 380s to the floor. There are four fixation kit variants for different floor types.

Image	Part ID	Mounted To
	LGM-FRAME-FIX-CC	Concrete
	LGM-FRAME-FIX-WD	Wood
	LGM-FRAME-FIX-MG	Grid
	LGM-FRAME-FIX-ID	I-Beam

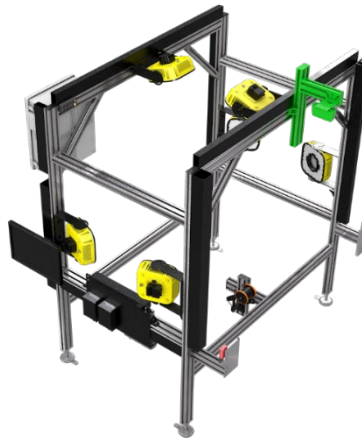
Appendix C Dimensioner Installation

Appendix C Dimensioner Installation

C.1 Single-Head 3D-A1000

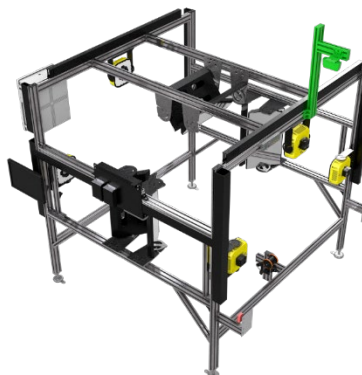
Non-Mirrored

1. Connect the broad side of the **Vertical extrusion** to the **Upper extrusion** with fasteners, facing upstream in the upper channel.
2. Connect the **Horizontal extrusion** to the **Vertical extrusion**.
3. Attach the 3D-A1000 camera to the **Horizontal extrusion**.
4. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



Mirrored

1. Connect the broad side of the **Vertical extrusion** to the **Upper extrusion** with fasteners, facing upstream.
2. Connect the **Horizontal extrusion** to the **Vertical extrusion**.
3. Attach the 3D-A1000 camera to the horizontal extrusion.
4. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



Appendix C Dimensioner Installation

C.2 Dual-Head 3D-A1000

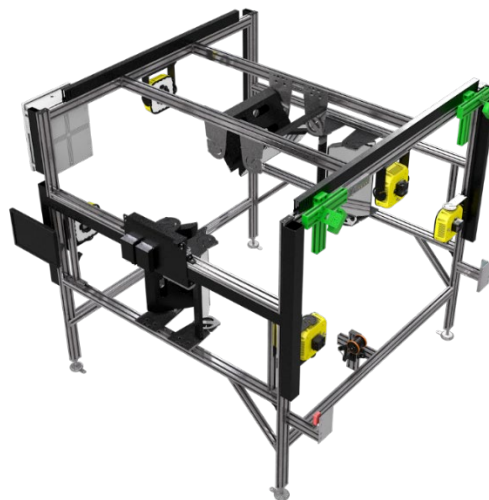
Perspective Non-Mirrored

1. Connect the broad side of the **Vertical extrusions** to the **Upper extrusion** with fasteners.
2. Connect the broad side of the **Horizontal extrusions** to the **Vertical extrusions**.
3. Attach the 3D-A1000 cameras to the **Horizontal extrusions**.
4. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



Perspective Mirrored

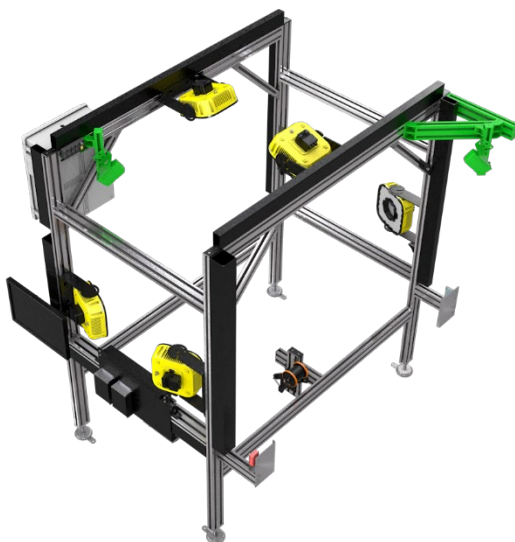
1. Connect the broad side of the **Vertical extrusions** to the **Upper extrusion** with fasteners, facing upstream.
2. Connect the broad side of the **Horizontal extrusions** to the **Vertical extrusions**.
3. Attach the 3D-A1000 cameras to the **Horizontal extrusions**.
4. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



Appendix C Dimensioner Installation

Isometric Non-Mirrored

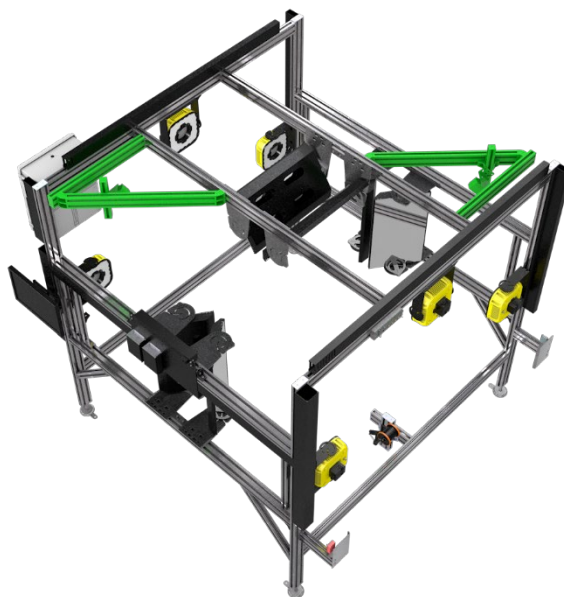
1. Connect the **Vertical extrusion** to **Upper extrusion** with fasteners, facing upstream on the inside of the tunnel.
2. Connect the **Horizontal extrusions** to the **Vertical rail**.
3. Connect the **Angled extrusion** to the **Horizontal extrusion** and the **Upper extrusion** with corner brackets.
4. Connect the **vertical extrusion** to the **Angled extrusion** with fasteners.
5. Attach the 3D-A1000 cameras to the **Vertical extrusions**.
6. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



Appendix C Dimensioner Installation

Isometric Mirrored

1. Connect the **Horizontal extrusions** to the **Cross extrusions**, on the inside of the tunnel.
2. Connect the **Angled extrusion** to the **Horizontal extrusions** and the **Cross extrusions** with corner brackets.
3. Connect the **Vertical extrusion** to the **Angled extrusion** with fasteners.
4. Attach the 3D-A1000 cameras to the **Vertical extrusions**.
5. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor, according to the site-specific drawings.



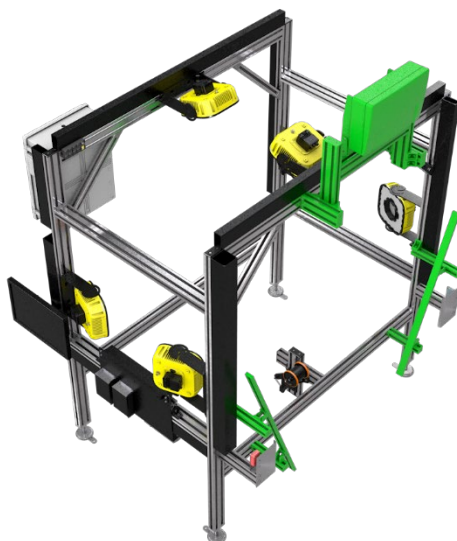
Appendix C Dimensioner Installation

C.3 Single-Head Mettler-Toledo

Non-mirrored and Mirrored

1. Connect the **Horizontal extrusions** to the **Upper extrusion** with fasteners, facing upstream.
2. Connect the **Vertical extrusions** to the **Horizontal extrusions**.
3. Connect the **Cross extrusion** to the **Vertical extrusions**.
4. Attach the dimensioner to the **Cross extrusion**.
5. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor.
6. Connect the **Long Beam Blocker extrusions** to the **Vertical rails**, on the inside facing upstream.
7. Connect the **Short Beam Blocker extrusions** to the **Lower extrusion**, facing upstream.
8. Connect the **Beam Blocker extrusions** to the **Long** and **Short Beam Blocker extrusions**.

Note: Make sure these extrusions block the beam on both sides.

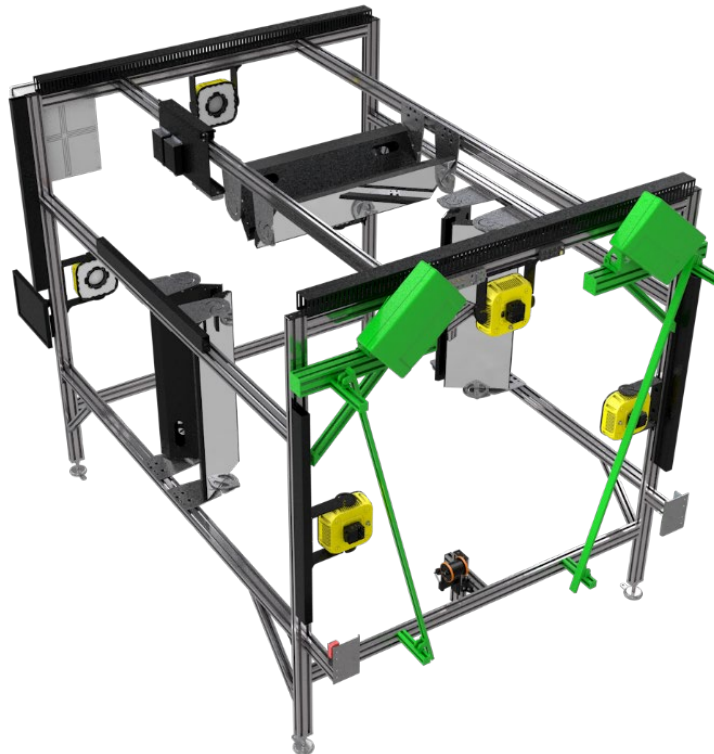


Appendix C Dimensioner Installation

C.4 Dual-Head Mettler-Toledo

Mirrored only

1. Connect the **Horizontal extrusions** to the **Vertical rails** with fasteners, facing each other on the upstream side.
2. Connect the **Beam Blocker extrusions** to the **Horizontal extrusions**, facing upstream.
3. Connect the **Beam Blocker extrusions** to the **Lower extrusion**, facing upstream.
4. Connect the **Beam Blocker extrusions** to the **Long** and **Short Beam Blocker extrusions**.
Note: Make sure these extrusions block the beam on both sides.
5. Attach the dimensioner to the **Horizontal extrusions**.
6. Adjust the extrusions and dimensioner so the center of the dimensioner is at the correct height above the conveyor.
7. Connect the **Angle Supports** to the **Vertical rails** and the **Horizontal extrusions**.



Appendix E Regulations/Conformity

Appendix E Regulations/Conformity

E.1 DataMan 380

DataMan 380 readers have Regulatory Model R00062 and meet or exceed the requirements of all applicable standards organizations for safe operation. However, as with any electrical equipment, the best way to ensure safe operation is to operate them according to the agency guidelines that follow. Please read these guidelines carefully before using your device.



Note: For the most up-to-date CE declaration and regulatory conformity information, please refer to the Cognex online support site:
<http://support.cognex.com>

Safety and Regulatory	
Manufacturer	Cognex Corporation One Vision Drive Natick, MA 01760 USA
USA	TÜV SÜD AM SCC/NRTL OSHA Scheme for UL/CAN 61010-1. FCC Part 15, Class A This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Canada	TÜV SÜD AM SCC/NRTL OSHA Scheme for UL/CAN 61010-1. ICES-003, Class A This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.
Europe	 CAUTION: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
	The CE mark on the product indicates that the system has been tested to and conforms to the provisions noted within the 2014/30/EU Electromagnetic Compatibility Directive and the 2011/65/EU RoHS Directive. For further information, please contact: Cognex Corporation, One Vision Drive, Natick, MA 01760, USA. Cognex Corporation shall not be liable for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE.
Korea	A급 기기(업무용 방송통신기자재): 이 기기는 업무용(A급) 전자파적합기기로서 판 매자 또는 사용자는 이 점을 주의하시기 바라 며, 가정외의 지역에서 사용하는 것을 목적으로 합니다. For DataMan 474 with Regulatory Model R00062: R-REM-CGX-R00062.MSIP-REM-CGX-DM260PoE
International Product Safety	Conforms to IEC 61010-1, CAN/CSA-C22.2 No. 61010-1:2012 + UPD No. 1:2015-07, UL 61010-1:2012 + R:2015-07, UL 61010-1:2012 + R:2015-07, EN 61010-1:2010.
CB	TÜV SÜD AM, IEC/EN 61010-1. CB report available upon request.

Appendix E Regulations/Conformity

E.2 For European Community Users

Cognex complies with Directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE).

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed.

In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems for product disposal. Those systems will reuse or recycle most of the materials of the product you are disposing in a sound way.



The crossed out wheeled bin symbol informs you that the product should not be disposed of along with municipal waste and invites you to use the appropriate separate take-back systems for product disposal.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You may also contact your supplier for more information on the environmental performance.