

Heavy Duty Electric Legs

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Overview

The Heavy-Duty Electric Legs are designed to provide robust support and flexibility for workstations. This product features four lifting columns, a controller and a remote. Additionally, the legs come pre-installed with rubber feet for stability.

Applications

The Heavy-Duty Electric Legs are versatile and can be used in various workstation configurations:

The workstation must be designed to have equal loading on all four legs. This can be accomplished by spacing the legs symmetrically about the center of the table. Make sure to have bracing extrusions in both horizontal and vertical direction on the extrusion table. 45x90 mm extrusions can be used for higher load applications. Use official Vention designs for guidance and make sure to request a design review from our Application Engineering team if there are any questions or concerns.

High Capacity Stationary Design

The High Capacity Stationary Design workstation utilizes pre-installed rubber feet for stability, making it ideal for stationary high-load applications.

- Rubber feet at the bottom of each electric leg.
- Maximum Load Capacity: 480 kg including extrusion table and table top.



Stationary workstation

Low Capacity Mobile Design

The Low Capacity Mobile Design workstation features swivel stem caster wheels (sold separately as MO-WL-005-0001). It is best suited for lighter, mobile applications.

- Insert swivel stem caster wheels at the bottom of each leg.
- Maximum Load Capacity: 160 kg including extrusion table and table top.



Mobile workstation (low capacity)

High Capacity Mobile Design

The High Capacity Mobile Design workstation comes with swivel stem caster wheels with brakes (sold separately as MO-WL-001-0004), a lower extrusion frame, and a lower adaptor plate (MO-EC-002-0002__2). It is designed for heavy-duty mobile applications.

- Design the lower frame using 45x45 mm extrusions, the lower adaptor plate, and the swivel stem caster wheels. Use the official design for guidance.
- Maximum Load Capacity: 480 kg.



Mobile workstation (high capacity)

Technical Specifications

Retracted length	610mm
Stroke	650 mm
Stage	2 stages
Diameter of Outer Tube	70 x 70 mm
Maximum load per Electric Leg	1200 N
Back drive resistance	1200 N
Max speed without load	23 mm/s
Max speed at max load	19 mm/s
Motor speed	5200 RPM
Voltage	24V DC
Typical Current	2.5 A (no load) ; 6.0 A (with load)
Power Cable Length	1500 mm

Standard feet	Rubber Feet (included in the kit)
Wheels	Swivel Stem Caster Wheel with Brake(MO-WL-005-0001); Swivel Caster Wheel with Brake (MO-WL-001-0004)
Includes	4 x Electric legs; 1 x Controller; 1 x Remote

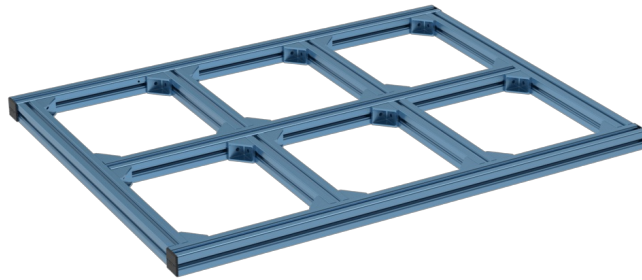
Note:

Specifications listed above are for centralized loading. For offset loading, the maximum capacity will decrease to not exceed 120 kg load per electric leg. Review the design checked by our Application Engineering team if you have any questions or concerns.

Assembly Instructions

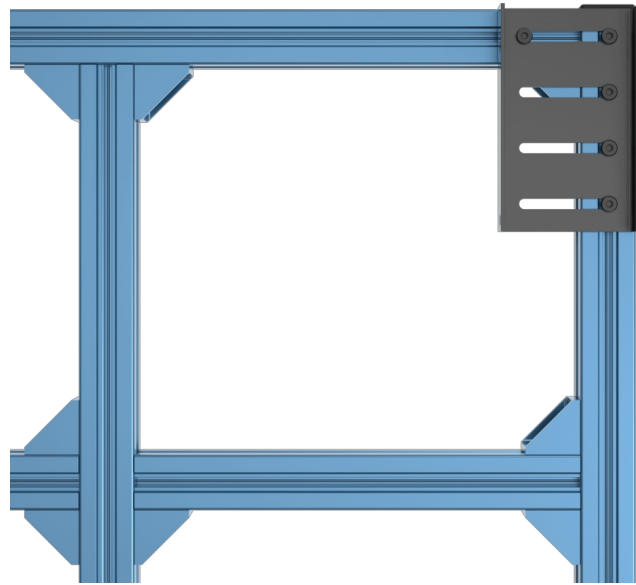
Table Frame Assembly

Step 1: Assemble the top extrusion frame on a stable surface, with the tabletop facing the surface.



Workstation frame

Step 2: Install all four Heavy-Duty Electric Leg Mounting Brackets onto the top extrusion frame using four to five M8 x 14mm screws and washers for each leg which are included as part of [MO-EC-102-0650_2](#).



Mounting bracket installation

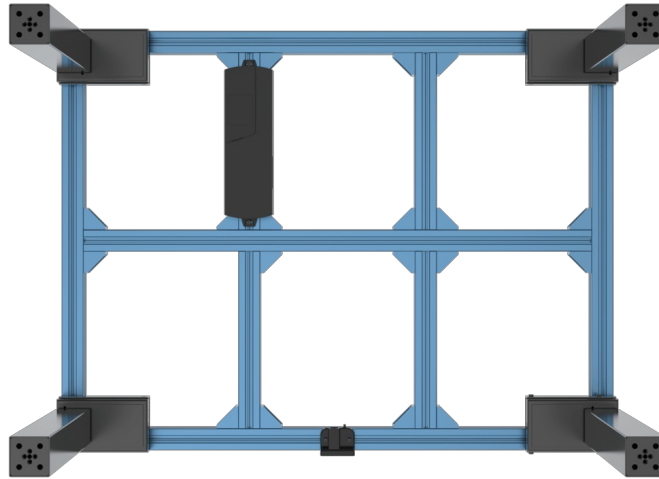
Double check the position of the mounting brackets using a measuring tape as the screws are inaccessible after installation of the legs. Ensure the brackets are connected to two extrusions for proper support.

Step 3: Screw the legs onto the mounting brackets using four M6 x 10mm fasteners for each leg.



Electric Leg Installation

Step 4: Mount the controller and the remote to the desired extrusions using two M5 x 14mm fasteners for the controller and two M4 x 25mm for the remote module. Associated t-nuts are included for each fastener type.



Controller and remote installation

Legs configuration and assembly

Depending on what is application the table is being used for there may be different accessories attached to the base of the legs. Follow the set of instructions below that correspond to your configuration.

A. Stationary Design using rubber leveling feet.

- Tighten the pre-installed rubber feet into the the legs all the way.
- The feet can be used to level the frame after it has been flipped over and placed on its feet.



B. Low Capacity Mobile Design:

- Remove the pre-installed rubber feet.
- Install swivel stem caster wheels (MO-WL-005-0001) directly onto the legs using the central M8 hole.
- Tighten the caster stem completely using a 12mm wrench.



C. High Capacity Mobile Design:

- Remove the pre-installed rubber feet.
- Install the lower adapter plate (MO-EC-002-0002__2) to legs using four M10 x 35mm fasteners included with the plate.
- Mount the extrusion frame to the adaptor plates using the included M8 x 18mm fasteners.
- Attach your desired caster wheels.



Table top Installation

1. Lift and orient the table right-side up. This may require multiple people depending on the size and weight of the table.
2. Attach the custom table top using the pre-machined holes.
3. Ensure the table top is securely fastened to the extrusion frame.

Verifications

1. Ensure all fasteners are tight.
2. Check for proper leveling and stability of the workstation.
3. Make sure that the workstation will be loaded centrally or that the load will be dispersed evenly.

Recommended Handling Methods

General Handling:

- Use appropriate lifting equipment when placing heavy loads onto the workstation.
- Avoid placing excessive side loads to the legs.

For Mobile Configurations:

- Ensure the workstation is at its lowest height when moving to avoid any tipping hazard. Remove loads before moving or place the load centrally and do not exceed walking speed while moving the workstation.
- Handle with care to avoid damaging the caster wheels or frame.