Projector Mounting Explainer

Projector Mounting Overview

Safety note. For all of these options you need to have a back up plan if the mount fails. In most cases that means a safety cable attached from the body of the projector to the grid or solid architecture of the building. Anything that goes over a person's head requires backup plans in case something fails. Also consider how far the projector could fall and if it would swing.

Pipe Style Mounts

A grid is a permanent structure built in a space and attached to the architecture to support equipment rigging. It is typically schedule 40 pipe but can be a lot of different things. Galleries typically use what is called Unistrut. You can adapt with something like this and still hang from a pipe!

Pipes for projector mounting are typically Schedule 40 1.5" NPT

- Schedule 40 (describes the thickness of the pipe walls)
- NPT (describes the threading for screwing the pipe into the mount)
- 1.5" (which does NOT refer to the actual outer diameter, it is the nominal pipe size "nps", it is actually 1.9")
- Example Pipe
  - AD_4nXcvxSxBDDc4nxuAK9kb1dipNN1-w-Q6nXvvCiySvfpdZh7th6Bz2wpcC7P8WYS9bN0iBxT
- More pipes of many styles.
- Pipes attach with a "cheeseborough"
  - AD_4nXfxt8SfHDue7fH3gYCdiz_F1hZoXSlsIUO5xYV030RWx9UPRngkO9zRYrPIlRlNFY-3GLK0kV

Pipe-based Mounts

- The primary type of mount we use are made by Chief Mounts
  - Your mount needs to:
    1. Support the full weight of the projector and any other possible weight from cables (so overestimate)
    2. Reach all the connections points - universal mounts have legs and need to be long enough to reach!
    3. Connect to the pipe or other connection point you are using.
  - AD_4nXeWREAlDmQyY102-oSkv9YfgZve3LB5FDqGBSnO1ULFp7IhkGYDGa68kktBA-iQUH4CUI
  - But you can use a lot of different brands
  - Projector mounts use metric screws. You can purchase a "VESA" kit to be prepared. Note that projectors don't use standardized VESA screw positions but do use the same types of screws.
  - Projectors may need spacers! Spacers adapt screw lengths to get around bumps on the body of the projector or make space between the mount and the equipment if there are bolt heads or other things sticking out and in the way.

- Projector mounts generally come in two pieces. The part that attaches to the projector and the part that attaches to the pipe.

How to hang the projector - Best practices

In order:

1. Attach the pipe side of the mount to the pipe.
2. Hang the pipe and check the height (note you are calculating for where the lens is - not the mount so know the vertical size of your projector and mount)
3. Attach a safety cable to the projector before attaching the mount. (it may block the safety cable point)
4. Attach the projector side of the mount to the projector.
5. Bring up the projector and slide the projector side of the mount on to the pipe side of the mount. Tighten all screws.
6. Attach the safety cable to the grid/truss.
7. Tighten and check everything but NOT TOO TIGHT

- Projector side of the mount installed on a projector.
  AD_4nXe86S69qkCy7kk6dtxp5Go6kY7w4CRFsIivfLXXL0SEICFuMZ0_MYDTL4C3Kxm983ZQeunL6

AD_4nXcUqUWQOdK_wFp71LtNjDHeA8LGK6T3MzrusKDakT1BCLGsvWoAjr6DqOB743kXLsujOXM

- Pipe side receiver. Note: these are not matching mount pieces, just examples of the different types.

- How to install video. For the “VPAU” model.
  - Manual as a pdf

Projector Cages

Panasonic Projectors can fit in the EVO P10 projector cages. These are ideal for floor projection as they can be mounted vertically and they support more weight than other non-cage type vertical mounts. They also allow easier access to adjust the projector position after mounting. They require specific clamps made specifically for these frames to attach them to the grid.

AD_4nXdRFbifTTEhD66AT7g-bfn7CEVT01vVG62LE01YWeIjQfQMO7dHJIlWUC3w8qEbgTAXi6_jqSBcDp

AD_4nXeuuBxS2iwJMNi50i5vakg852ShrZpLr25BMrEX3y7zojX-663Soc6zP-bq6AF3k6p8mSpysDJxoiLy
AD_4nXfFRptmnvpLEKig1V58ObkLTbK879QSSiKzseRy5ftr3W5K7on-CoYz6a1Tvec4H6cdtMGtbmkLW

Truss

Truss is used as a portable system for hanging equipment in temporary setups. It has an outer diameter of 2”.

AD_4nXczCByIOhrNO1bMIRU3QsDy-dhy0XFK1e80iV4-oV-kOED3lj7FahoR91E0Fj8SOIMafcpAmuW_NJf

- Great video that goes through all the clamps and how to hang them on truss.
- You can adapt pipe mounts to truss.
- Manual for the truss pipe adapter.

Clamps

- J Clamp - https://currentprice.io/j_clamp
- C Clamp - https://currentprice.io/c_clamp
- Global Truss Half Clamp - https://currentprice.io/mini_360
- Trigger Clamp - https://currentprice.io/triggerclamp

- Yoke Adapter - https://currentprice.io/yoke_adapter
  - Half Clamp To Baby Mount (for Yoke Adapter) - https://geni.us/2cmsb
- 3/8 - 20 Bolt for Super Clamp - https://currentprice.io/spigot_stud
- Manfrotto Super Clamp - https://currentprice.io/super_clamp

Plywood options

If you don’t own a mount you can often use plywood and drill holes to accommodate the mounting points or make a shelf or create an adapter if you don’t have a pipe based grid to hang from.

Important things to consider:

- Plywood Thickness & Type – Thicker plywood can support more weight. Marine-grade and structural plywood are stronger than softwood plywood.
- Bolt Size & Type – A larger diameter bolt with a washer distributes force better, reducing the risk of tearing through the plywood.
- Bolt Placement – Bolts near the edges of the plywood are weaker than those placed more centrally.
- Washers & Backing Plates – Using washers or metal plates prevents bolts from pulling through the plywood.
- Load Type – A static load (steady weight) is easier to support than a dynamic load (swinging or shifting).
- Support Behind the Plywood – If the plywood is backed by a wall or frame, it improves strength.

Plywood Thickness Estimated Load per Bolt (Static Load, with Washer)

- 1/4" (6mm) ~10-20 lbs
- 3/8" (9mm) ~20-40 lbs
- 1/2" (12mm) ~50-75 lbs
- 3/4" (19mm) ~100-150 lbs
- 1" (25mm) ~150-250 lbs

Shelf Options

Shelves are often used when projector positions are static and not likely to move in a space. These can be purchased but are rather simple to make.

Considerations:

- Weight capacity
- How is the shelf attached to the architecture?
- Are the projector’s fans clear and able to cool the projector?
- Is there room around the projector to allow for cable attachments?
- Is the projector securely attached? Or could it move/fall?

Examples:

- AD_4nXdOf8oniHLhWd-q29eltxKOs05zZQjf_4kX4T_S3wpY6r643FLzQfrVLaY74jk9QoYFF81sz2Ad_
- AD_4nXd19Fk5m0LbS-KZM455LolE8DqQtD3xC0OpG62QX3XYrhmNIkL5xIjm786bZ2X9rgVoMIOE

Projector Stands - Floor Mounted

There are many purpose built stands but even more repurposed stands.

Speaker & tray stand style:

AD_4nXeuC-Zjd2lLHaPDrmjVzIBh6LnuWg5X69W--8pd0kFZnC4mvSErlOoL_aMirxg_x6uayGcZAxBviro

Purpose built portable table style by Da-Lite

AD_4nXfBxK7jh-EmQLCDmBvwrRxh86uWrITigfCWkhROi1RxZeAssDG5P1abYFoS7oRrpBKTm6Ze11ya

C-Stand style mounts

AD_4nXeGTTR8miiqJJVmaEpUO116x1qsh7hV2wbdYV-rfHI4wDEYmudtju2G7MyygXxiusIwL1_eTpI_bf4

Projector Plates for Truss

AD_4nXdCt_5eFLo0sxHlWnrmPNbhOW_kJl2XqEj-HvZhS0HMvI10cq6IdcnDc0m41yHSwdENxBwat-tCzZ

Monitors

AD_4nXet1iW3jm3ImLoXvcSUzhUyJIC0qHCmHJjgsaALroJJ23qgTQeY6GYvlQinvTEUdAeY71p9dMYkX3S

VESA Standards - Monitors only

VESA stands for Video Electronics Standards Association - and they set a lot of standards, primarily we talk about them in regards to monitor mounting points. In the photo above a custom VESA

mount is shown that was machined to allow for ALL VESA connections.

Revision #5
Created 2025-07-09 15:27:15 UTC by Nica Ross
Updated 2025-08-22 13:07:59 UTC by Cam Vokey