

Pinning objects for display

What do we mean by 'Pinning'?

Pinning is the process of using metal pins covered with plastic tubing to mount objects.

Uses

Pinning is a **low-cost** method of mounting objects which results in a **high-quality display** that is **safe** for objects.

Pinning is not a long-term storage solution.

Factors to consider

The materials required for pinning are cheap, and good pinning is discreet.

Pinning is a labour-intensive process, taking time and care to install and de-install.

Pinned displays cannot be moved- the pinning needs to be removed and re-done.



Principles of pinning

There are some basic requirements that your pinning should satisfy, think about these while you are planning, doing and checking your pinning.

SECURE – the pins should be appropriate for the weight of the object, held firmly in the backboard and be able to withstand knocks and vibration from a variety of sources.

SAFE – the pins should not scratch or squeeze the object, they should not put pressure on fragile areas and the object should be fully supported where needed.

SIMPLE – try to find the most straightforward way to pin the object. It should be easily apparent how to remove and replace the object.

SUBTLE – the pins should be as discreet as you can safely make them so they don't distract the eye from the object. Try not to obscure details or inscriptions.

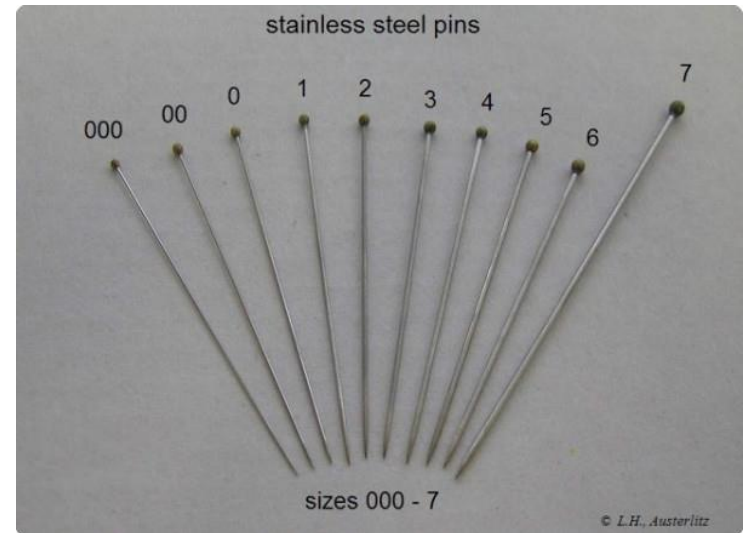


Pins

We mainly use stainless steel insect pins from entomoravia.eu. They come in a range of thicknesses, are easy to bend without snapping and are quite strong for their size. We use sizes 1, 4 and 7 and find that to be a good spread of sizes for our smaller objects.

Tubing

To cover the pins to prevent scratching or otherwise damaging the objects we use Portex fine bore polyethylene tubing, which is sold as catheter tubing. It has passed Oddy testing at the BM. It is soft and flexible for sliding onto pins, comes in a wide variety of sizes (the larger you go the less flexible/useful it gets as the walls get thicker) and doesn't reflect light like some tubing can so can be fairly unobtrusive. It's manufactured by Smiths Medical (smiths-medical.com/industrialproducts/8/39/) but we order it from (consumables.com/Products/Fine-Bore-Polyethylene-Tubing/Fine-Bore-Polyethylene-Polythene-Tubing) as there is no minimum spend. Please see the table below for the tubing we have found to best fit the pins.



PIN SIZE	TUBING REF.
1	800/100/140 (size 0.4mm)
4	800/100/200 (size 0.58mm)
7	800/100/260 (size 0.86mm)

Pliers and cutters

We use a variety of pliers for pinning but the most useful are the pinning pliers from Benchmark (www.benchmarkcatalog.com/main-tools).

Unfortunately they are quite expensive and will need shipping and customs from America paid, but they make pushing pins in a lot easier. And are easier on your hands when pushing into dense wood!

A pair of round nose pliers and a pair of flat nose pliers are most useful for getting tight bends and neat curves in your pins.

We use Bahco side cutters (2101G-160) for snipping pins, they seem to cut through quite thick metal relatively easily, and can be purchased from Amazon.



Clockwise from top: side cutters, flat pliers, round nose pliers, pinning pliers



Close up of pinning pliers

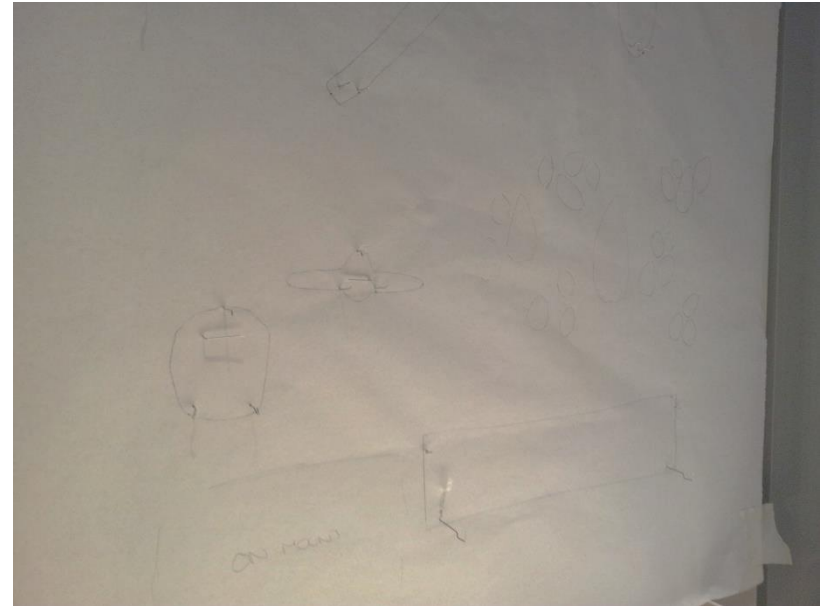
Before you start, **check which way up your panel will be installed.** It may have brackets on the back which denote its orientation. Make sure you pin it the correct way up!

Cover your board with tissue paper, so you can draw round objects easily and mark dimensions and pin positions. It's easier than marking up with masking tape, doesn't leave sticky marks on the fabric and will protect the panel from dirt while you work

Lay the objects onto the board, and consult with the curator and designer as necessary to make any changes. They will be concerned not only with how the objects look, but also if the order corresponds correctly to the labelling. Bear in mind that some cases require small numbers to be positioned next to the objects, you must make sure there is enough space for these.

Once the layout is decided you need to **record the positions of the objects.** You can carefully draw round them using a mechanical pencil (use a plastic tipped one to avoid scratching the object), or just put small pencil marks to show where corners or other obvious features go. You might also like to take a photo for reference.

Make sure objects are straight and in the correct orientation at this point!



Positioning your pins

There are three main 'types' of pin you can employ for basic pinning.

- **Weight bearing pins** are normally placed at the bottom of the object (or wherever you decide to support the weight) and have a bend over the front of the object to stop it from slipping off the pins.
- **Retaining pins** are used against the sides or tops of objects to stop them from tipping forwards. They also have a bend over the front of the object to 'retain' it.
- **Support pins** can be placed against the object to take additional weight alongside the weight bearing pins or to stop an object from moving side to side on a backboard or when it is sitting on the base of the case. They do not have to bend over the objects.

When deciding which parts of your object should have pins placed against them, you should **examine the object for any fragile or vulnerable areas**. Avoid placing stress or taking weight on areas with damage, very thin or friable parts or areas which have been repaired by conservation (sometimes these can be hard to spot!). Also try not to obscure any decoration or inscriptions. You might also like to try and consider where you can place pins to make them least obtrusive.

Think about how the object will be placed on and removed from the pins. It should be easily done without turning or otherwise having to move any pins. If this is unavoidable then you can use turning retaining pins. Make sure they come out of the board straight or they will not turn properly!

Use as many pins as you require but try to **keep it simple**. You can use a mixture of different sizes, for example two size 7s on the bottom to take the weight and thinner size 4s as retaining pins.

Securing your pins

When pinning into soft board such as Forex or Sundeala board, pliers and a small bit of effort are usually enough to push a pin in. Use ridged bent nose pliers or pliers with a notch in the nose such as the yellow handled ones from Benchmark. These make it easier to grip the pin and keep it upright while you push it into the board.

Start by gripping the pin very close to the point and pushing in a couple of millimetres to start. Push the pin in using small movements, little by little. Don't be tempted to hold it further up and try to push the whole thing in, it will bend! Try to keep the pin going in straight in case you need to turn it later on.

Aim for at least a centimetre of the pin to go into the board. You can check how far the pin has gone in by holding up another pin by its side. This gives enough grip to keep the pin securely in place.

You can also use a small hammer to tap the pins in, particularly larger headed pins. Be careful to tap them in slowly and straight!



Marking and making your bends

Once you have secured your pins into the backboard you will need to mark any bends you want to make. There are several ways to do this. Carefully place your object next to the pins and use one of the following methods.

Very carefully mark the pin using a mechanical pencil.

Place a small plastic ruler next to the pin and note the length at which you need to make the bend.

Use a small strip of masking tape to wrap around the pin.

Never use your tools near an object or bend a pin with the object in position!

Look at the shape of your object to decide whether you will need to make sharp bends or smooth curves. It is best to fit the pin as closely to the contours of the object as you can to give it good support and keep your pinning discreet.



Figure 3 This is bad! Don't do this!!

Pinning

Cutting & covering your pins

Cutting and covering your pins

When you have made all the required bends in your pin, you need to cut the end off. You may need to do this before all your bends are complete in order to get the right contours and fit the object, just make sure you leave yourself enough excess – don't forget you can always trim it but you can't add any on! Use a good pair of snips to cut through the pin, holding onto (or covering with your hand) the pinhead in case it flies up and hits a person or an object. Put any cut-offs into a sharps bin for disposal.

After your pin is cut to the required length, with all its bends in place, you need to **cover it with tubing**. We use Portex polyethylene tubing as it is soft, non-reflective and fairly malleable for getting over bends. It has passed Oddy tests so is safe to use against the surface of objects.

Select the correct size and push it over your pin, all the way down to the backboard. You can use your fingernails to encourage it around bends, it shouldn't be too difficult unless they are very sharp bends!



Checking your pinning

You might like to do a few checks on your pinning before installing it in its final location. It is sensible to put your board in its intended orientation and check that your pinning still holds the object straight and securely. If it is a loaned in object the courier might also like to have a look at your pinning at this point. Put your object onto the pins and take it off again to check if it is simple and safe enough. If you are unsure if it will be easily interpreted by a fresh pair of eyes, you can always get someone else to test it. You might like to take a photo to help with installation, particularly if the pinning is unavoidably complex or someone else is going to install the object.

Installing your object

Carefully remove the tissue paper from your board and install the backboard. Check that no tubing has been pulled off, particularly from any straight pins. Place your object onto the pins, checking that you are still happy with its security. Never install a board with the objects in place.

