How to Make Flags and Masts

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Flag making

Materials required

Paper

Glue

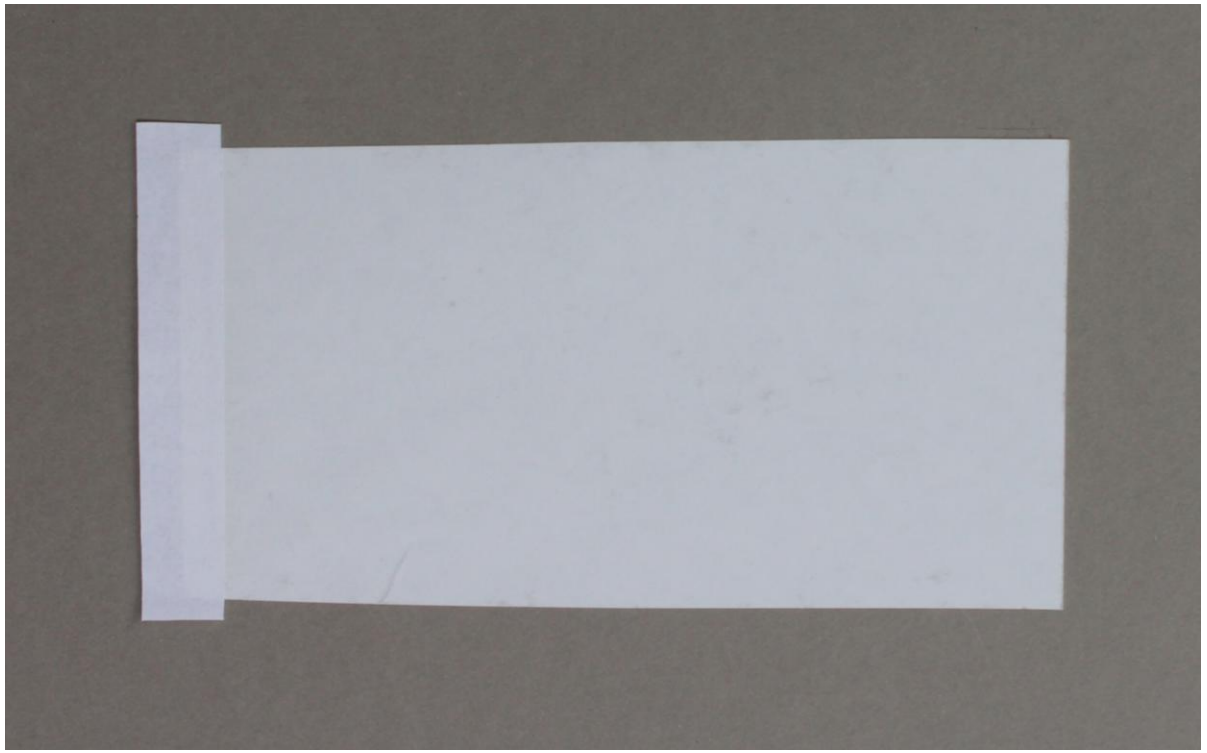
Tape

Water

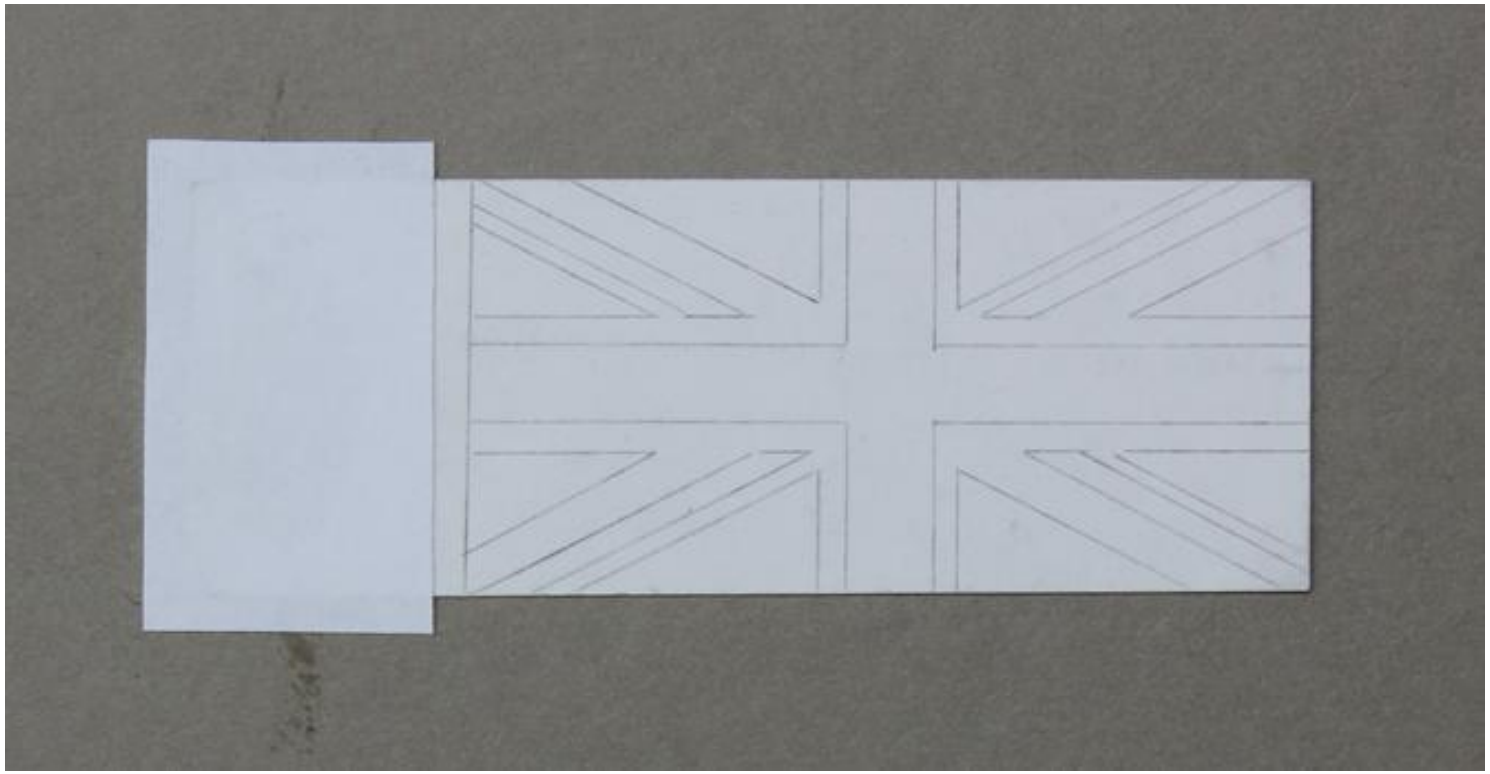
Pencil

Paint

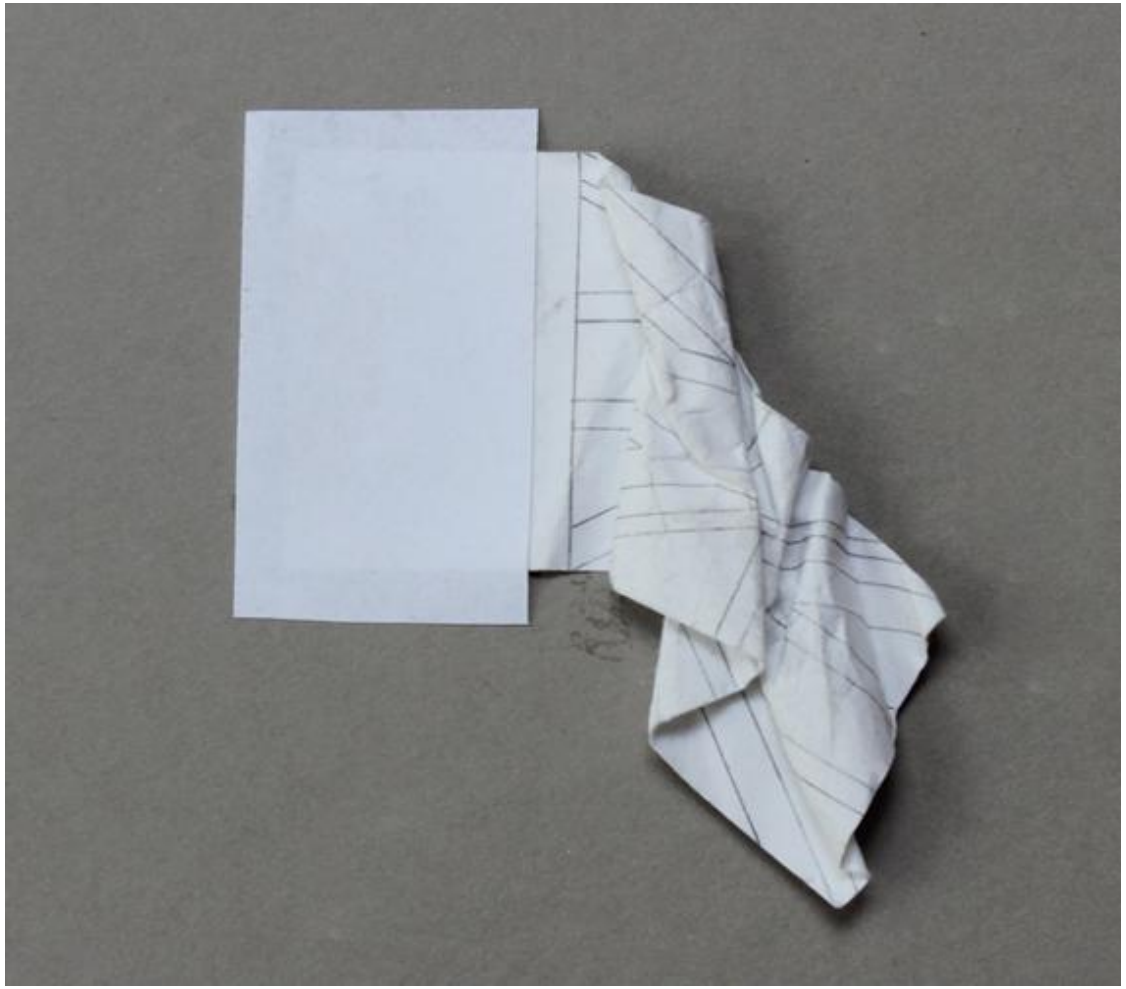
Tape paper to a solid surface



Lightly draw the flag onto both sides of the paper

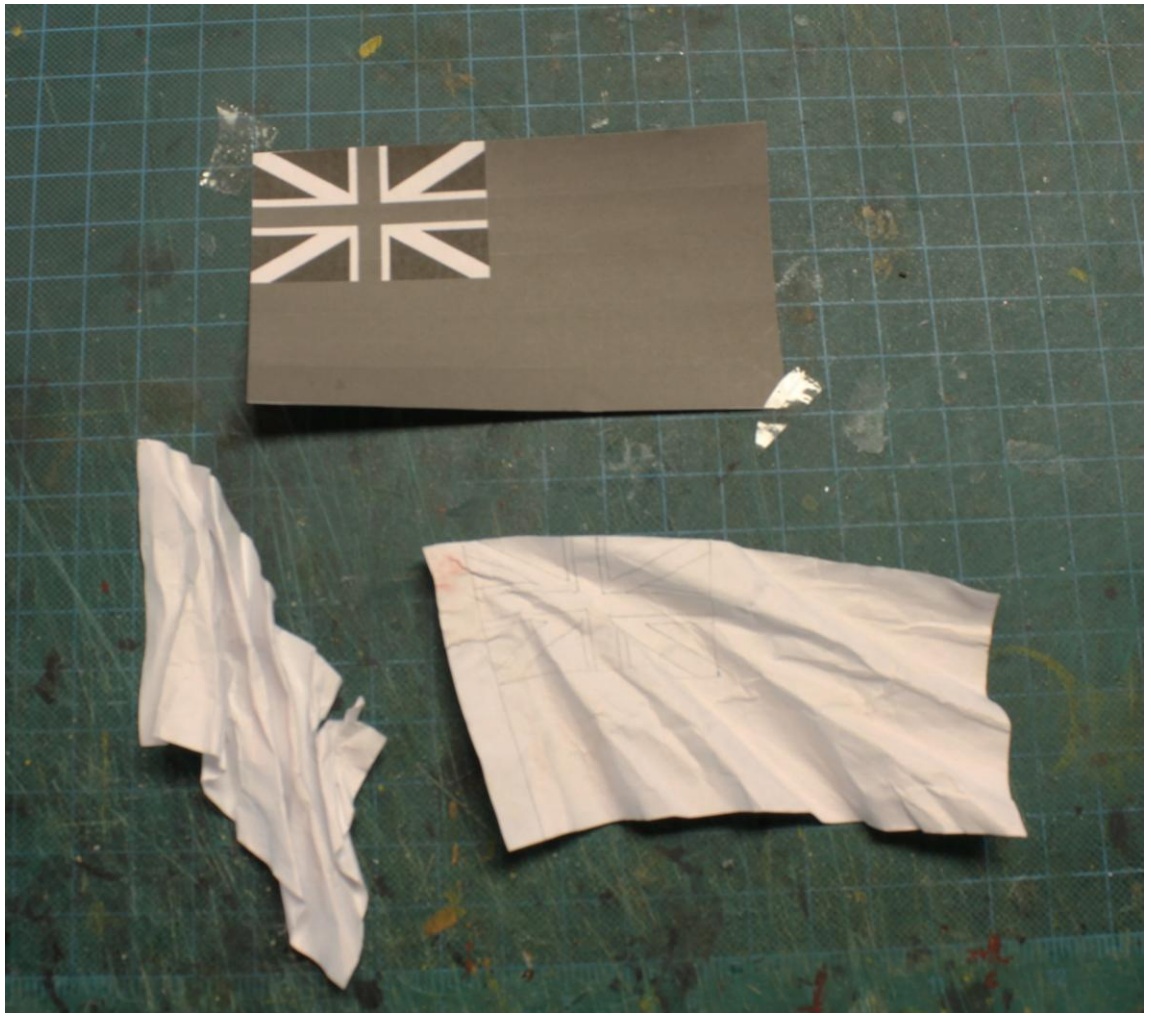


Wrinkle the flag to approximately the shape you want when it is finished



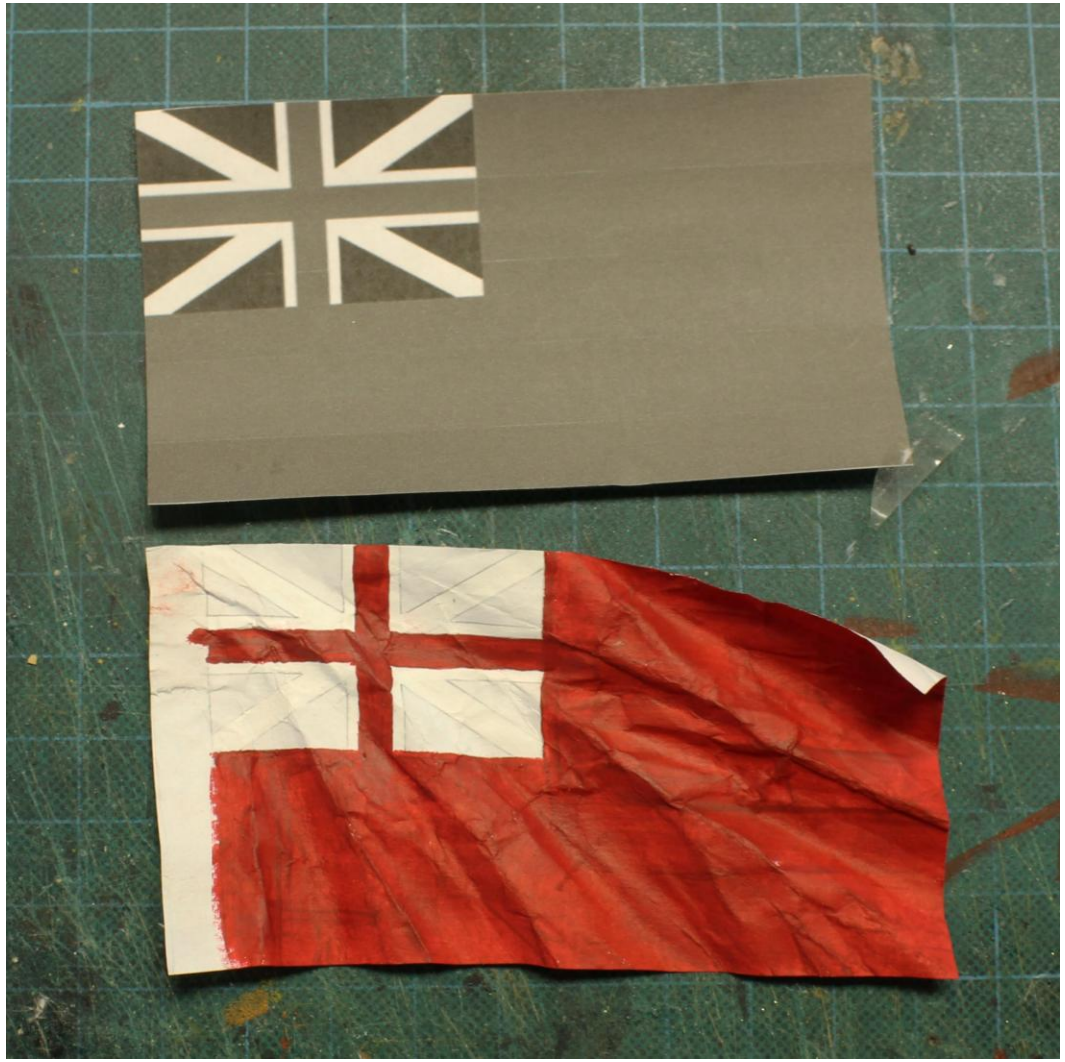
Dip the flag in water and let it dry. This will give the flag memory of the shape you want it to form.

After it is dry, lay it out “flat”

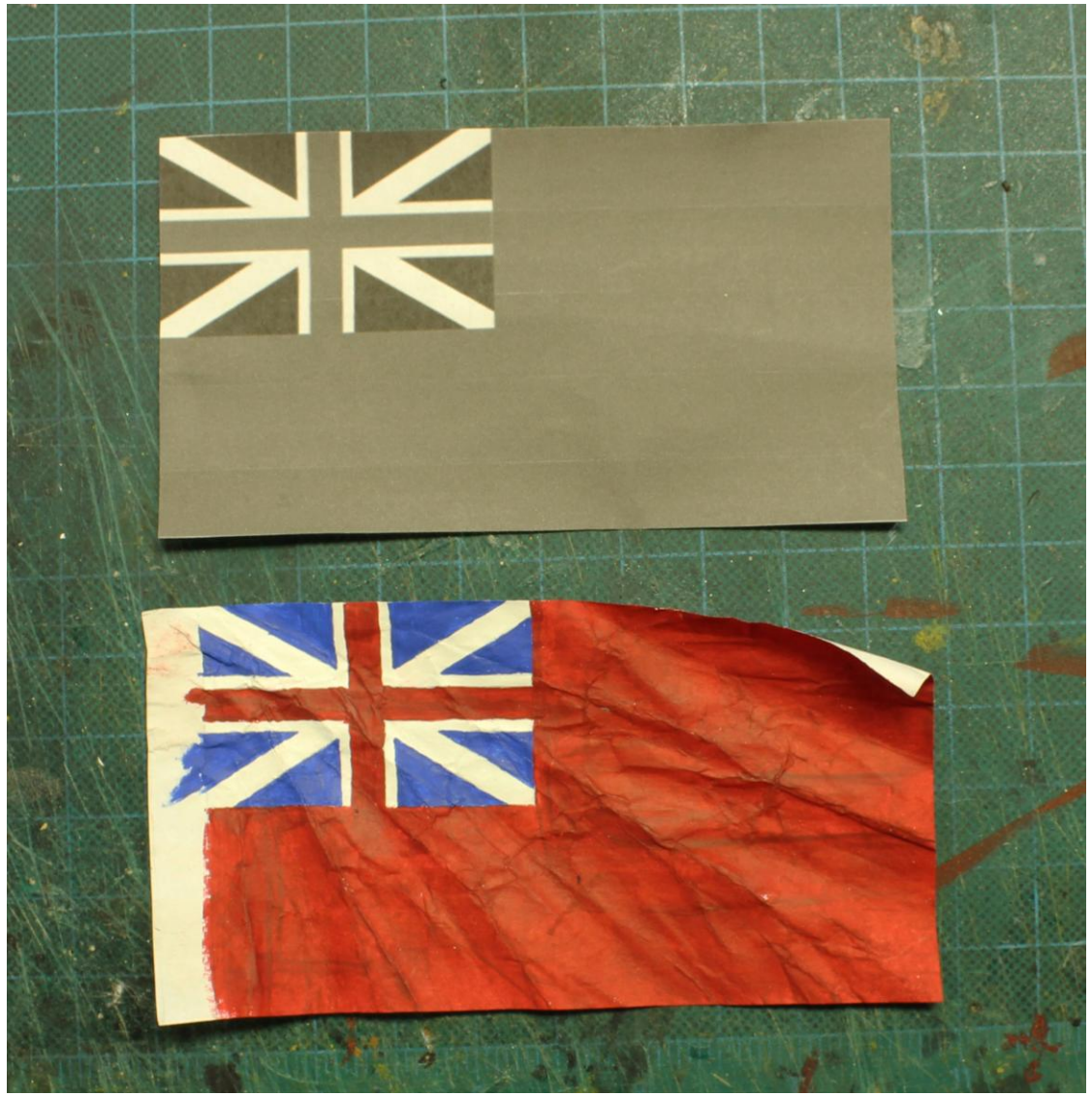


Paint one side of the flag, giving it plenty of time to dry before switching colors.

Leave a white band on the aft edge of the flag.



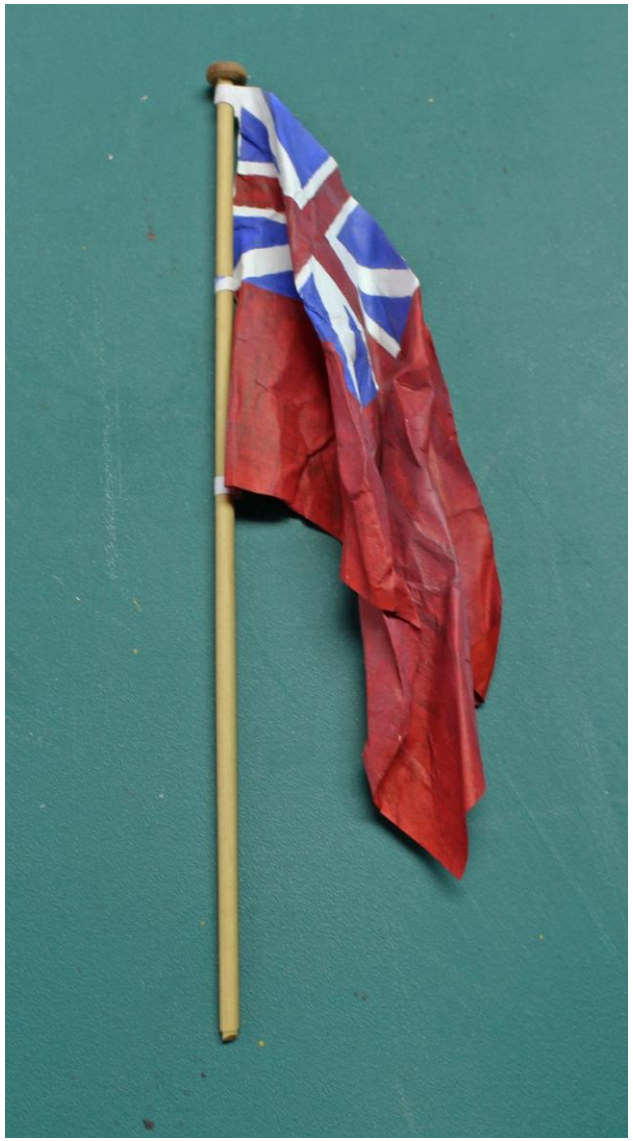
Paint the other side.



Reform the flag to the desired shape.

Lightly mist with water if necessary

Cut white ties from the aft band and mount on a flagpole.



Final result

Questions?

Mast making

Several ways to make a mast

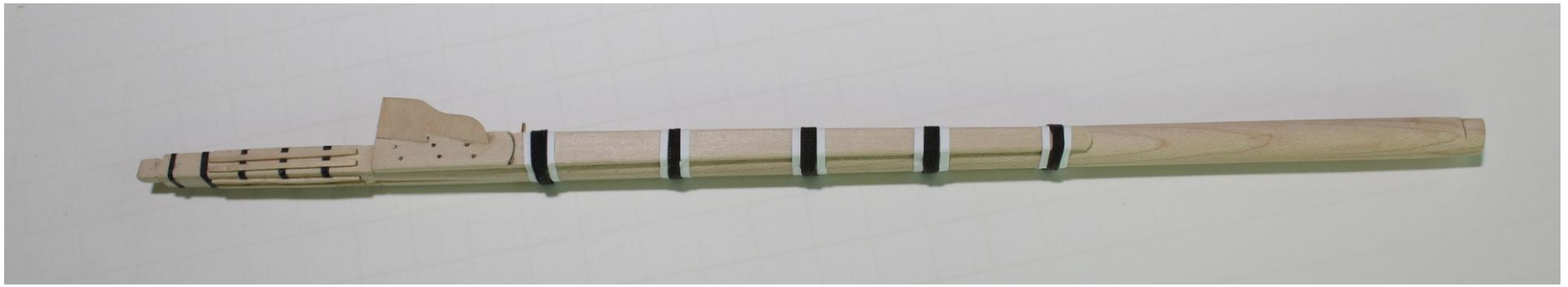
- Use what came in the kit, without modification
  - Real masts taper. The taper is minimal near the bottom and increases as you go up.
  - Many kit supplied dowels are warped
- Chuck into a drill and taper with sandpaper
- Use a lathe
- Start with a square piece of wood

Starting with a square dowel

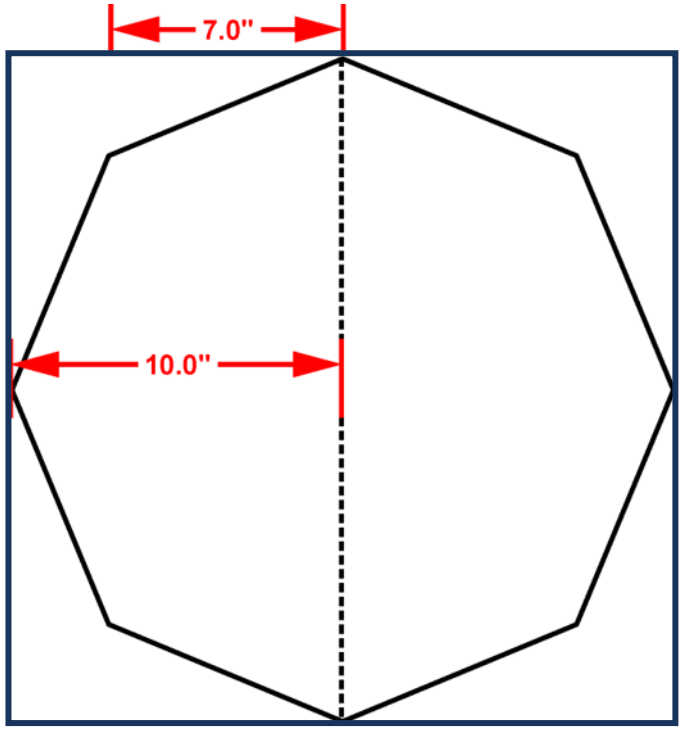
- Easy to source from big box store
- Use a table saw to cut it down to approximately the size needed
- Tools required
  - Holding jig
  - Chisel or miniature plane
  - Sandpaper
  - Calipers
  - Pencil

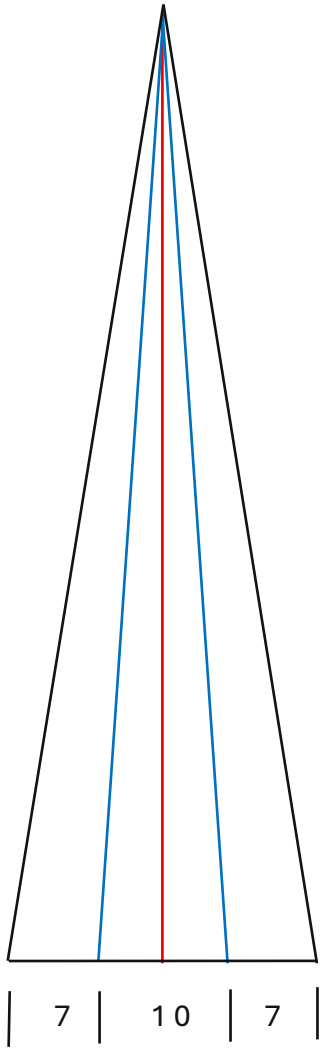
How does a square dowel become a mast

- Need to know the diameter of the mast at various locations
- The square dowel need to become an octagonal one
- Once it is an octagon, it is easy to round it off with a sanding block or sandpaper



Square to octagon





Square to octagon

- The diameter of masts at the foot, quarters, hounds and mast head is published in several sources
  - If you are building a British ship, Steel's Elements can be downloaded for free
  - The American navy followed British practice into the early 1800's
  - Commercial vessels had more variability
- Mark the diameter of the mast at the partner, quarters and hounds using calipers
- Mark the 7:10:7 ratio at the same places
- The mast head is addressed separately. Wrap tape around it to protect it from damage

Mark out the mast

Shaping the mast

- Use a sharp chisel to slowly cut down to the marks
- Several shallow passes are better than one or two
- If the chisel starts to dig into the wood, reverse it in the jig
- Take a little bit off each face, rotating the dowel in the jig
- Once you are happy with the octagon, either make it 16-sided with a chisel and/sanding block or freehand round it up

Shaping the mast

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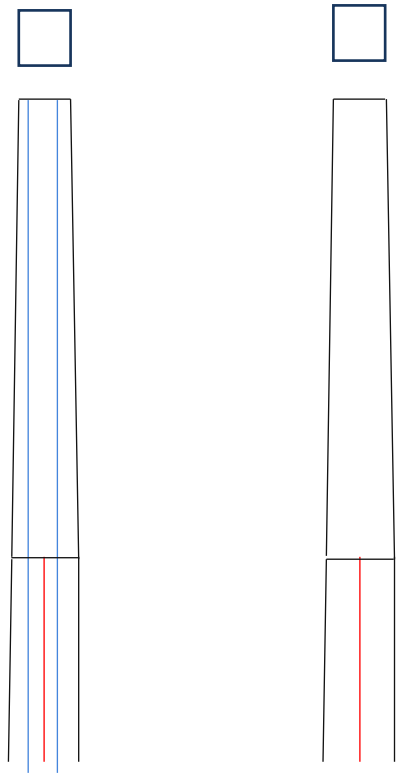
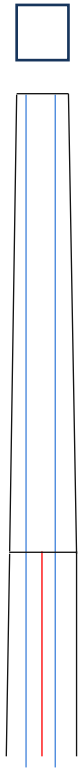
The mast head

- On an actual mast, the sides of the mast head are cut down (blue lines), leaving the full thickness fore and aft.
- After the cheeks are installed on the sides of the mast, the mast head is built back up to a square shape.



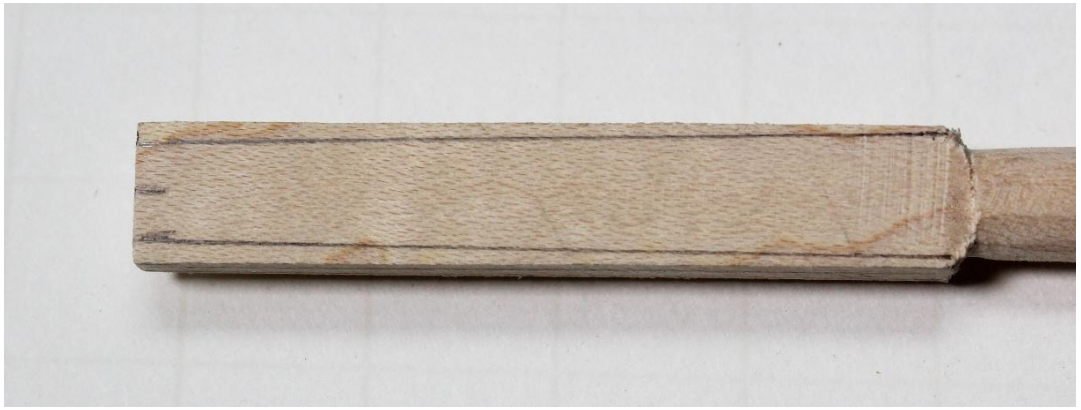
Sides

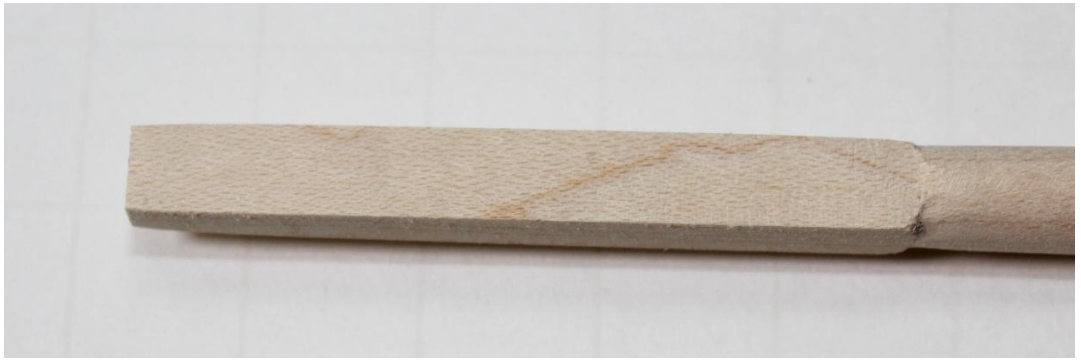
- Cut down to the blue line
- The hounds will also need to flattened and tapered on the sides

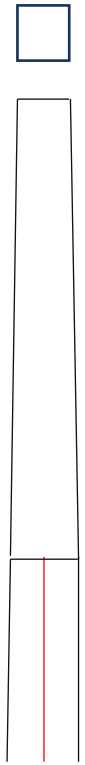


Fore and aft

- Cut down to the black line
- The hounds are not tapered







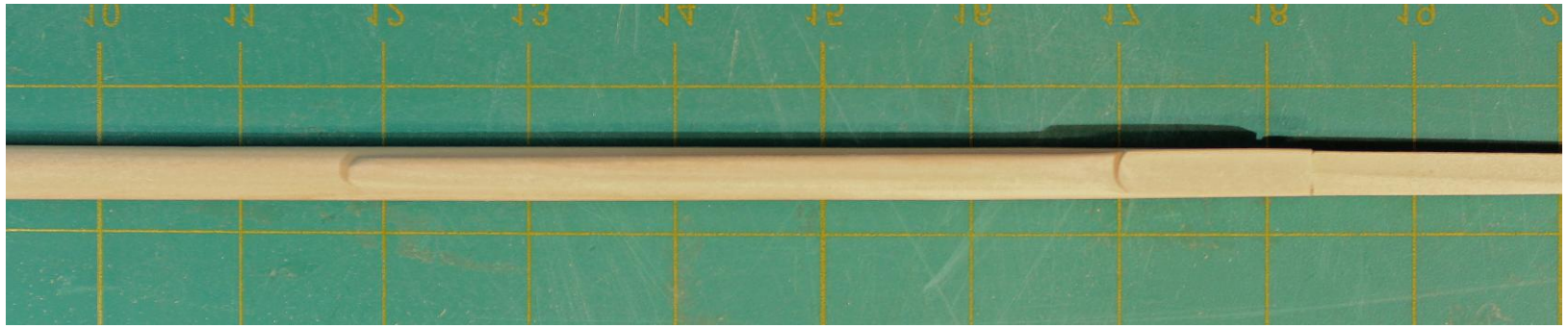
Cheeks and bibs

- Cheeks are applied to the sides of the mast and provide extra strength
- Bibs attach to the cheeks and support the top
- A lot of variation based on the era, size and type of ship

Cheeks and bibs

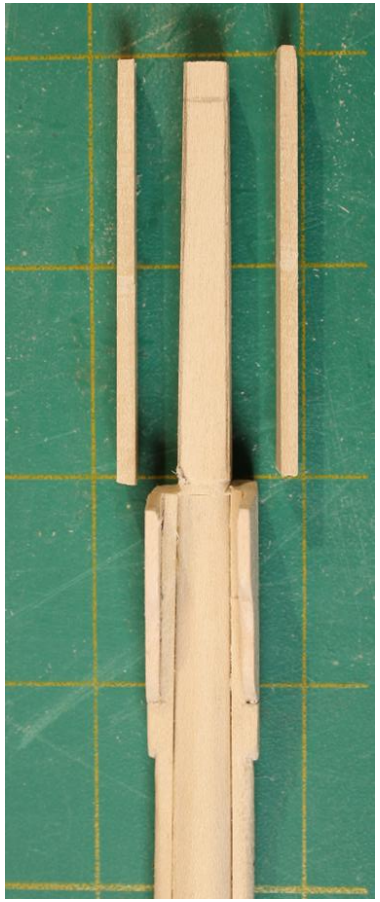
- Mast sides are flattened to accept the cheeks

Cheeks and bibs



Cheeks and bibs

Finishing the mast head



Questions?

Demonstration