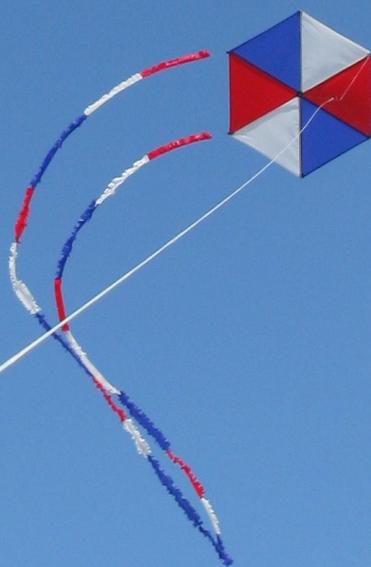


Hexagon Kite Workshop



by
Arthur Dibble

Materials

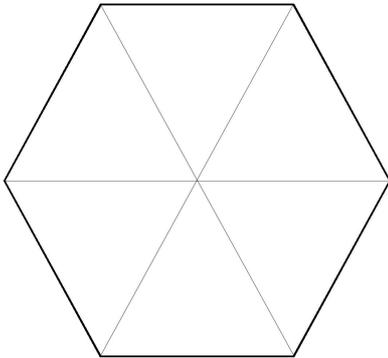
- The kite is made from rip-stop nylon with Dacron pockets and Dowel spars.
- They will all be supplied complete with bridle lines and flying line.
- Tools such as saws, sandpaper and hot cutter will be supplied.

Equipment

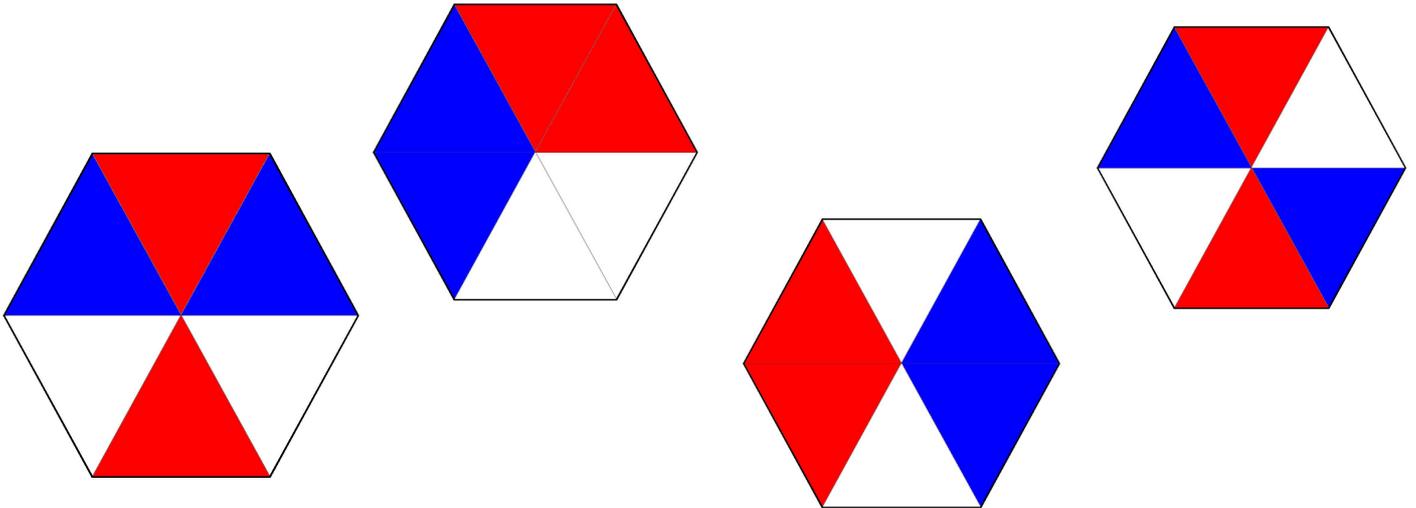
- You will need to bring:-
- Sewing machine
- 100% polyester, white thread
- Shears
- 1 metre rule
- Soft pencil
- I always require a stitch ripper!!!!!!!!!!!!!!
- Pins

The Kite

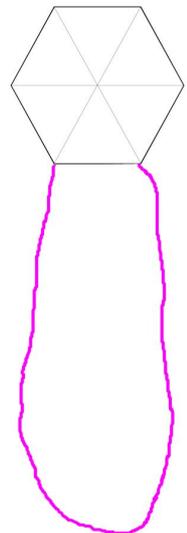
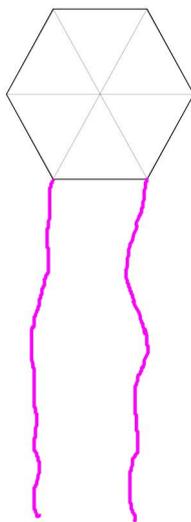
- The kite is a simple flat hexagon with long tail.
- It is easy to make, as there are no curved seams.
- It will fly in winds from 4 to 12mph. At the higher wind speeds it pulls hard and you will need to wear strong gloves. (leather/gardening type)

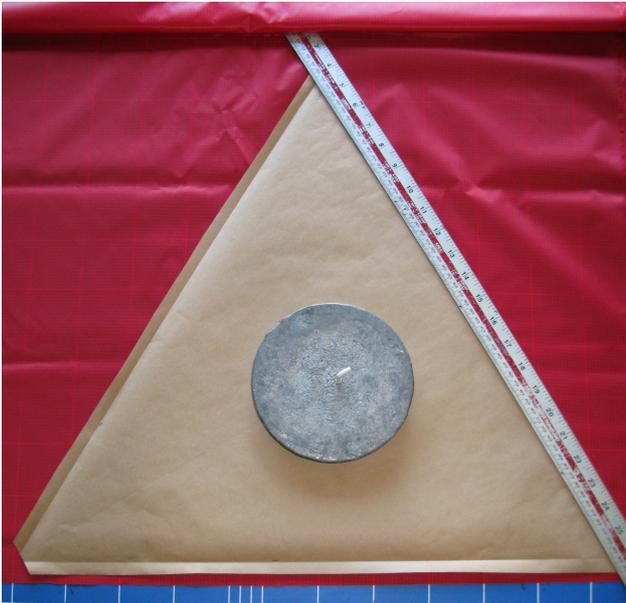


- The hexagon kite we are going to make consists of six triangles.
- We will be using three colours and the first decision is how to arrange these.
- Then which is to be the top.



There are three possible arrangements of tail





- Place a template on the first colour of material and hold in place with a weight.
- The bottom edge should be parallel to the weave.
- Draw around the template using a rule to keep it firm.



- Turn the template over and align it with the previously drawn triangle.
- Using scissors, knife, roller cutter or hot knife cut out these two shapes.



- Repeat for the other two colours so that you end up with six pieces.



From the off-cuts of material left over from cutting out the sail parts cut as many strips as possible 3 inches (75mm) wide.



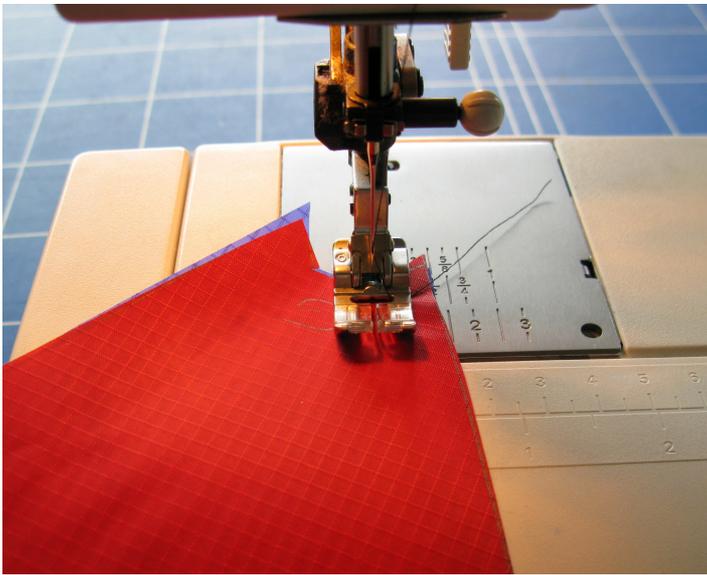
Use all 3 colours. You should end up with over 20 feet (7m) for the tails.



- Take the pieces cut off for the tail and sew them along a continuous length of string with no gap between each section.
- Now using scissors make a series of cuts in to about 12.5mm from the string from each side. These should be spaced at about 12.5mm.
- This process can be speeded up by winding the tails around a former and cutting several layers at a time.
- These cuts do not have to be accurate.



- From the remainder of the off-cuts cut random pieces to make a rectangle 25 by 125cm.
- Turn over 20mm along one of the shorter edges and sew down to form a tube.
- Fold in half lengthways and sew down the open edge and bottom being careful not to sew across the mouth of the tube.
- Turn the bag right side out and thread a draw string through the top tube.



- Take the first two pieces and put them faces together.
- Pin them together at regular intervals along one edge.
- Starting from the centre sew a seam 12.5mm from this edge.
- Make sure the pieces do not slip on each other.



- Open out the two sheets and fold the hem flat.
- Sew this down flat.
- Now add the next section in the same way.
- Take care to lay the hem in the same direction each time.



- Continue doing this until all six sections are joined.
- Lay the first panel over the last and complete the hem.
- You should now have a complete hexagon.



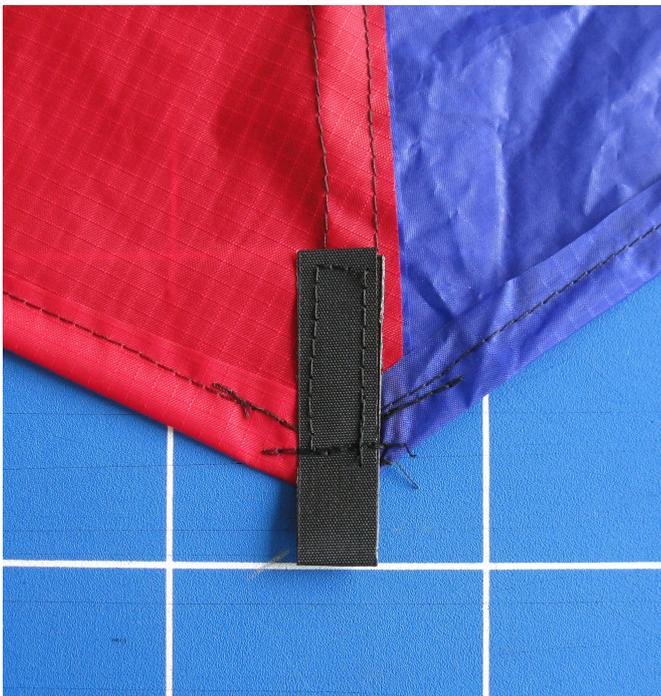
At the centre there should be a small hexagonal hole.



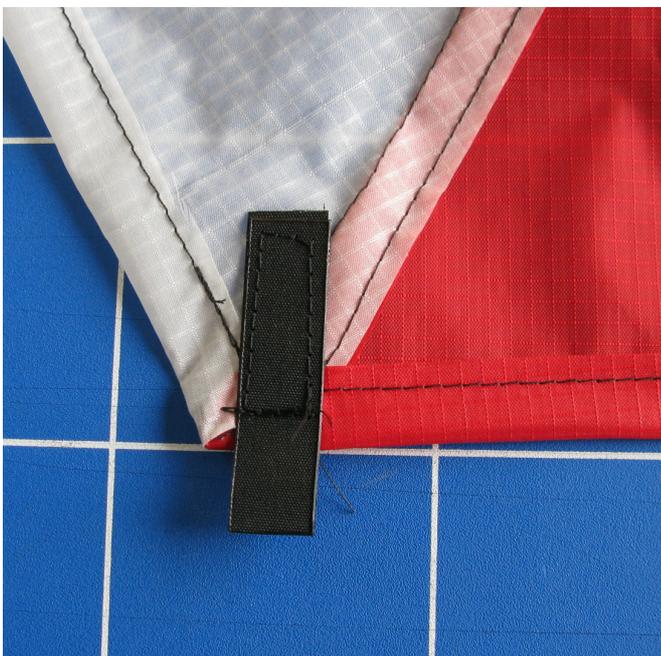
- Turn over a 12.5mm hem on the outside edge to the same side as the joining hems already made.
- Sew this down all the way round.



- The next phase is to cut out the loops and pockets required from the Dacron tape.
- This is done using a hot cutter.
- Take care as it gets very hot.**
- Always cut on to a glass surface and use a metal straight edge.
- First cut a 100mm length of the 50mm Dacron and then cut it in 4 length wise.
- Next cut 6 strips 30mm wide across the 50mm Dacron.



- Take one of the 100x12.5mm pieces of Dacron and fold it in half.
- Sew this to the back of one of the TOP corners of the sail, along the seam, leaving 10mm protruding past the corner of the sail.
- Repeat this at the other TOP corner.

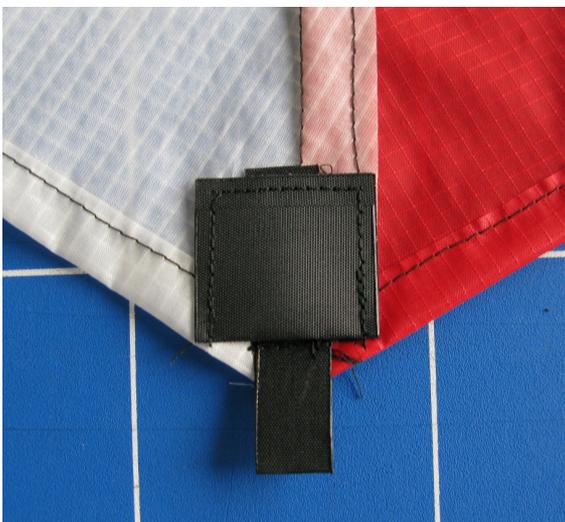


- Repeat the previous step for the bottom corners but fix the tapes at right angles to the bottom edge.



- Take one piece of the 50x30mm Dacron and fold it in half so that one side is 5mm longer than the other.
- Sew this to one of the left or right corner along 3 sides only so that it forms a pocket.
- Repeat this for the other corner.

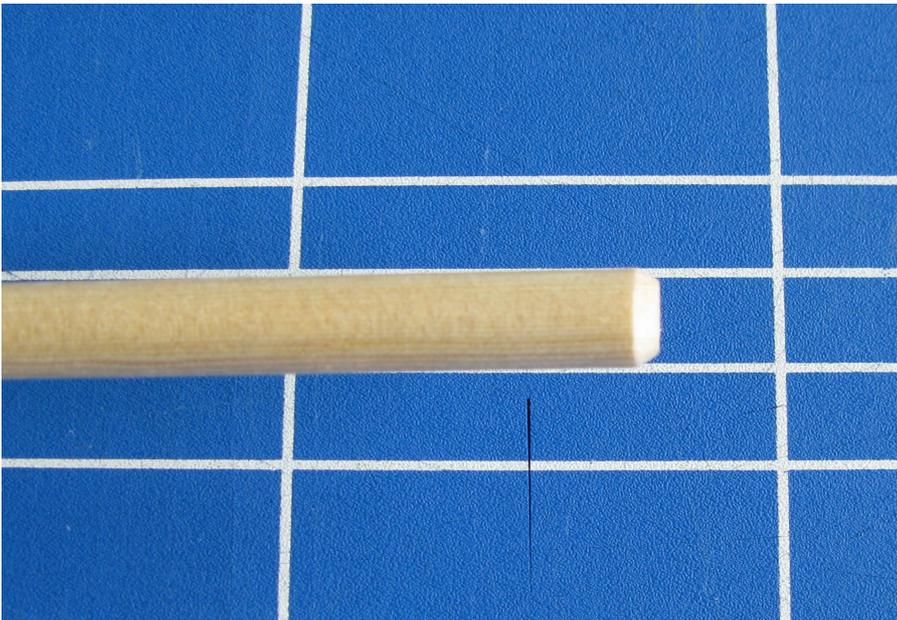
- Repeat the previous steps for the other four corners noting that the pocket goes over the tab but stays in line with the main seam.





- Using a suitable template hot cut a 50mm diameter circle of Dacron.
- Sew this to the front centre of the kite.
- Using a soldering iron make a two small holes one above the other about 10 mm apart.





- Using sand-paper round the end of a piece of doweling.
- Fit this in to one of the pockets and stretch the sail across it. Mark the position of the end of the pocket on the dowel.
- Cut two more spars the same length and round the ends.
- Fit the three dowels to the sail.



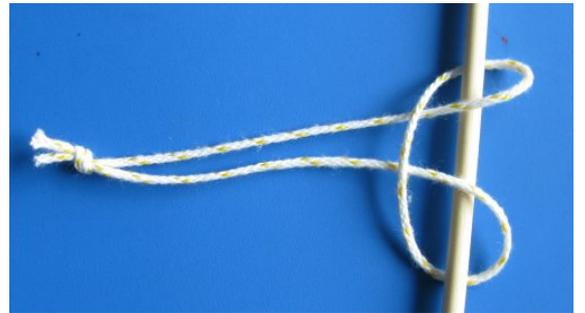
Bridle

- Cut a 2m length of line and tie one end through each of the top loops.
 - Find the exact centre of this line and mark it, then tie an overhand loop with this mark at the centre.
 - Cut a 1.5m length of line and tie an overhand loop in one end.
 - Pass this loop through one of the holes in the centre reinforcing, round the back of all 3 sticks and back through the other hole. Pass the end of the line through the loop and tie it to the loop in the top bridle.
-
- Cut a 1.5m length of line and tie one end through each of the bottom loops.
 - Find the exact centre of this line and mark it, then tie an overhand loop with this mark at the centre.
 - The tail may now be fixed to this loop or the ends attached to both the lower loops for the looped form.
 - Cut a 25cm length of line, fold it in half and tie a single overhand not to form a loop.
 - Use a Prussic knot to attach this to the lower bridle line. (see diagram on next page.)

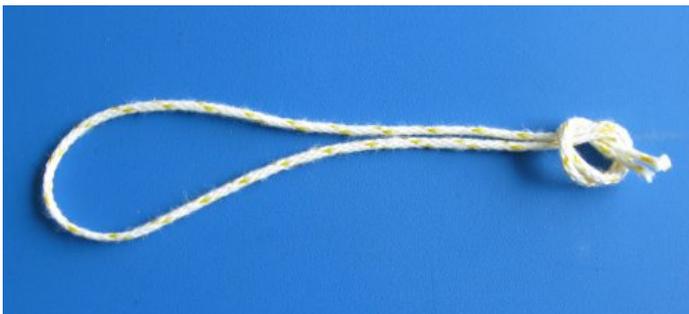
Prussic Knot



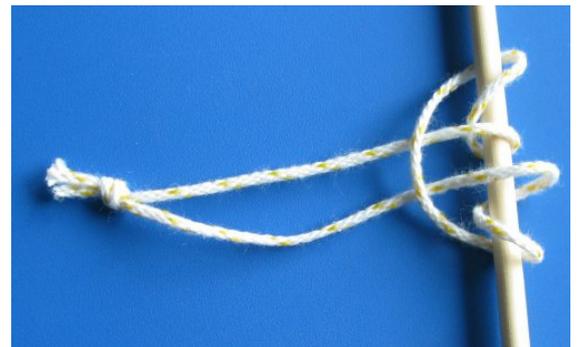
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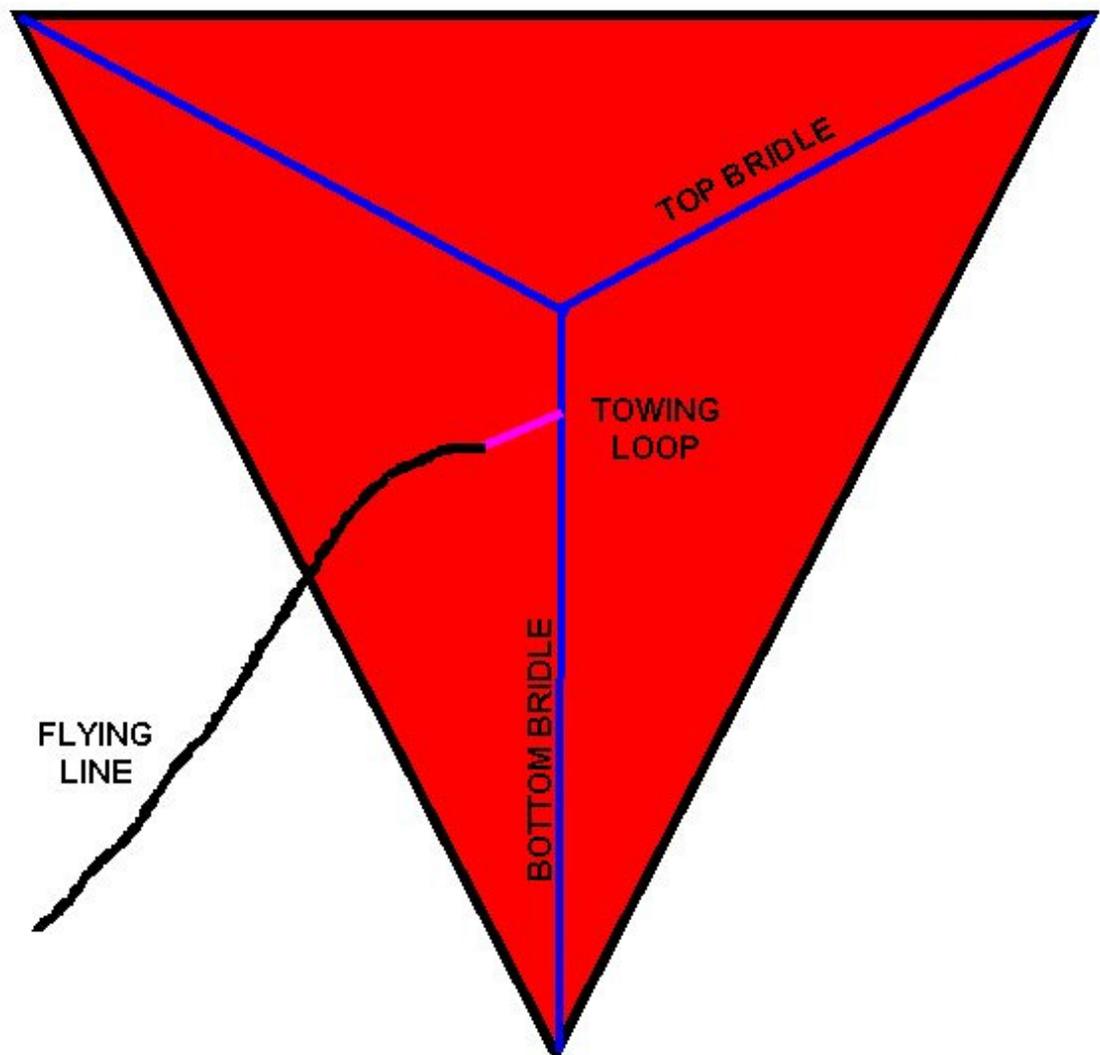


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- Lay the kite on its back on a flat surface and lift the loop so that all bridle lines are straight.
- Adjust the position of the loop on the lower bridle line so that it is above the centre of the top triangle.
- Mark this point as the approximate flying point.
- Attach the flying line to the loop using a larks head hitch. (see Prussic knot 4 and slide it up to the knot.)





- Go fly a kite.
- If your kite does not climb; move the towing point up in small increments until it reaches a good angle.
- If your kite oscillates from side to side; move the towing point down in small increments until it stabilises.
- Most of all: have fun.
- I hope you have enjoyed the workshop and look forward to seeing you on a flying field somewhere.

•Metric measurements are used throughout this presentation. For those of you wishing to use imperial units please use the following conversions.

- 12.5mm = 1/2inch
- 20mm = 3/4inch
- 50mm = 2 inches
- 75mm = 3 inches
- 100mm = 4 inches
- 25cm = 10 inches
- 125cm = 50 inches
- 2m = 6 foot 6 inches
- 8m = 25feet



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