

## **Portaledge Fly Construction – DIY Homebuild**

I sewed the fly for a trapezium portaledge that was given to me as a kit by John Middendorf using the measurements he gives on this link:

<https://bigwallgear.com/d4-trapezium-design-notebook.html>

The material I used was PU coated ripstop nylon from Ripstop by the Roll, also kindly donated by John.

### **Steps:**

1. I laid out the fabric folded as a double layer, measuring the length according to the pattern on the link above. The fold formed the centre of the 'wall-side' section.



2. I measured out the pattern and drew it onto the fabric using a ruler with built-in angle finder. This was the best way I could find for getting the angles as precise as possible. All the angles and side lengths are given in John's pattern so this was easier than it appears. I worked piece by piece to measure up each angle and side length, finishing up with the correct measurements, which I could double check by

calculating the difference from 90° (the top of the fabric) after all pieces had been drawn on.



3. I made the fabric 'skirt' using extra ripstop as the width of the original fabric was not enough to incorporate it. Again all these measurements are given in the link above. I used straight rectangles of fabric for the skirt pieces and angled them as I sewed them to give the right level of 'tuck'.



4. Using a home sewing machine, I sewed the skirt onto the main fabric. I chose to use a 'fold-over' seam angled downward, thinking that water would more easily roll off the seam without seeping up it. All seams were finally sealed anyway to ensure impermeability.

5. I then sewed the skirt pieces together at the short sides to allow the skirt to tuck neatly under the frame. It was a bit of guesswork to get the right angle but I would say I angled the tucks slightly more than the 90° I had cut out and the final result fits very well around the frame.

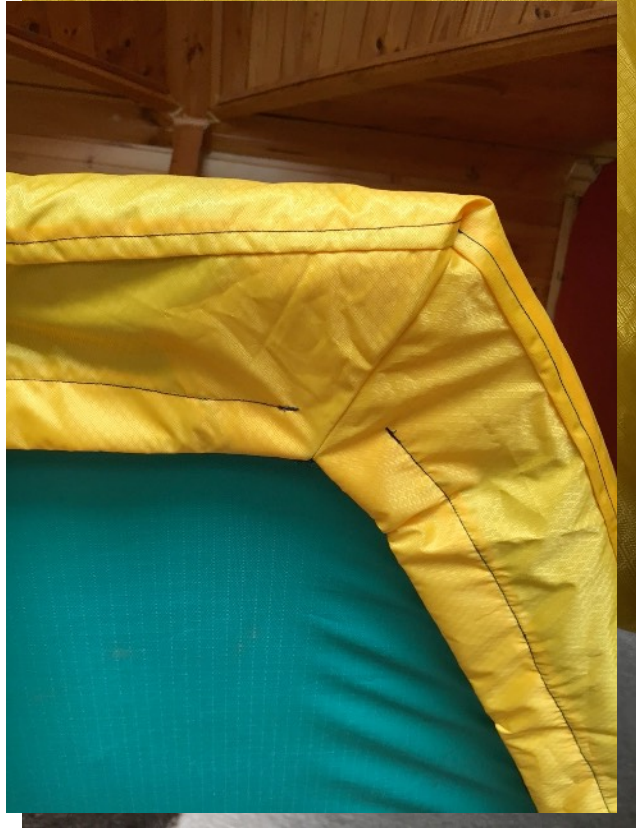


6. Next I sewed the main centre seam of the 'air-side' section. Lacking a waterproof zip, I decided to sew the entire seam closed with about 25cm left open at the very bottom to fit in a zip, giving just enough opening to allow the fly to be closed or opened around the frame but without compromising its waterproof capacity.

7. The next step was to hem the entire fly. I sewed a wide reinforced hem to allow it to be threaded with elastic cord to give an even more secure fit around the frame when closed.

8. I sewed a 23cm heavy duty zipper into the seam opening I had just left, and then improvised a cover for this zip with a semi-circular piece of ripstop to protect it from





rain. The cover is big enough to allow the zip to be opened and for the fly to be tucked around the frame.



9. Lastly, I made the conical cap for the fly. Again I improvised the measurements for this piece and it turned out fine. I cut a curved piece of ripstop and finished the bottom edge with seam tape. I then sewed it closed to form a cap. Using a speedy stitcher, I sewed a dogbone made from webbing onto the cap and the main fly piece with one loop protruding from each side of the centre opening. The inner loop clips to the sit suspension straps and the outer loop is connected to a maillon or biner to hang the sit.





10. Once all the sewing was complete I sealed all the seams with a commercial seam sealant. John recommends using Shoe Glue or a similar product for the seam where the dogbone joins the cap and main fly, so I did this too. I also threaded the bottom hem with a cord to allow it to be cinched in tight around the frame.

11. I tested the fit of the fly over the frame and found it to be perfect! Thanks a million to John Middendorf for donating all the materials, instructions and perfect measurements for this project!!

