Valhalla’s sewing patterns

Feb 08, 2022

CONTENTS:

This is a collection of sewing patterns designed or adapted by Elena "of Valhalla".

The patterns in this repository are usually parametric, and require the valentina[1] pattern making software to adapt to one's individual shape and print.

The latest version of this document is published on https://sewing-patterns.trueelena.org/; a pdf version[2] and an epub version[3] are also available; note however that this document is pretty image heavy, and may not load correctly in many ebook readers.

The PDF and epub versions also don't include the patterns which can be downloaded from this website in valentina or PDF format.

This document is generated with Sphinx[4], and its sources are published on https://git.trueelena.org/crafts/sewing_patterns/.

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[1] https://smart-pattern.com.ua/en/valentina/download/
[2] https://sewing-patterns.trueelena.org/Valhallassewingpatterns.pdf
[3] https://sewing-patterns.trueelena.org/Valhallassewingpatterns.epub
[4] https://www.sphinx-doc.org

Part I

Contemporary Womenswear

This part includes patterns based on contemporary (late 20th / 21st century) blocks for people with breasts.

CHAPTER

1

CONTEMPORARY WOMENSWEAR MEASUREMENT FILES

1.1 Aldrich

The file `aldrich.vit` includes the measurements used by the patterns based on blocks from Metric Pattern Cutting for Women's Wear by Winifred Aldrich[5], using the following correspondence to Valentina's measurements.

Please refer to Valentina's Tape application images for details on how to take these measurements on somebody.

[5] https://openlibrary.org/works/OL16995319W

Metric Pattern Cutting...		Valentina	
1	Bust	G.04	bust_circ
2	Waist	G.07	waist_circ
2a	Low Waist	G.08	highhip_circ
3	Hips	G.09	hip_circ
4	Back Width	I.08	across_back_b
5	Chest	I.03	across_chest_f
6	Shoulder	I.01	shoulder_length
7	Neck size	G.02	neck_circ
8	Dart	Q.01	dart_width_shoulder
9	Top arm	L.12	arm_above_elbow_circ
10	Wrist	L.15	arm_wrist_circ
11	Ankle	M.09	leg_ankle_circ
12	High Ankle	M.08	leg_ankle_high_circ
13	Nape to waist	H.19	neck_back_to_waist_back_b
14	Front shoulder to waist	H.06	neck_side_to_waist_bustpoint_f
15	Armscye depth	H.21	neck_back_to_highbust_b
16	Skirt length		
17	Waist to hip	A.20	height_waist_side_to_hip
18	Waist to floor	A.23	height_waist_back
19	Body rise	N.08	rise_length_side
20	Sleeve length	L.01	arm_shoulder_tip_to_wrist_bent

Part II

Contemporary Menswear

This part includes patterns based on contemporary (late 20th / 21st century) blocks for people without breasts.

Part III

Contemporary Unisex

This part includes patterns based on contemporary (late 20th / 21st century) blocks that are suitable both for people with and without breasts.

Part IV

Historical Womenswear

This part includes patterns based on historical (early 20th century and earlier) blocks and examples, which in its time would have been considered womenswear.

Part V

Historical Menswear

This part includes patterns based on historical (early 20th century and earlier) blocks and examples, which in its time would have been considered menswear.

Part VI

Accessories

CHAPTER

2

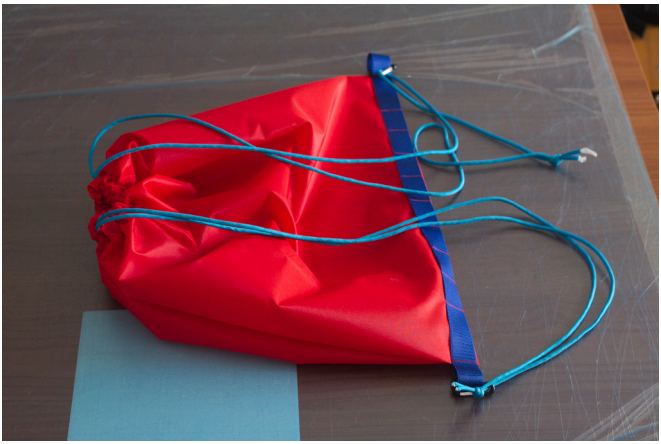
BAGS AND BACKPACKS

2.1 Drawstring Backpack

A drawstring backpack (or ten!) is an useful item to have around, a nice reusable container to wrap gifts in, but also an easy project for sewing beginners or to get experience with more demanding materials for more advanced sewists.

2.1.1 Materials

- Fabric: about 100 cm × 50 cm, see below for suggestions;
- webbing, twill or grosgrain tape: 60 cm, 2.5 cm width;
- cord: 4 meters;



- 2 minibiners;
- sewing thread.

For beginners I'd strongly recommend using a sturdy cotton fabric and cotton tape, possibly matched with jute cord.

For people who are confortable working with slippery materials (or are ready to start working on those), a lightweight water repellent fabric such a silnylon makes a pretty useful backpack; in this case nylon or polyester webbing and paracord are a good match.

2.1.2 Instructions

Tip: If using coated, water repellent fabric, you want to minimize holes, so use a longer stitch than usual (e.g. 3 mm) and avoid using pins as much as possible, only using them in the sewing allowances.

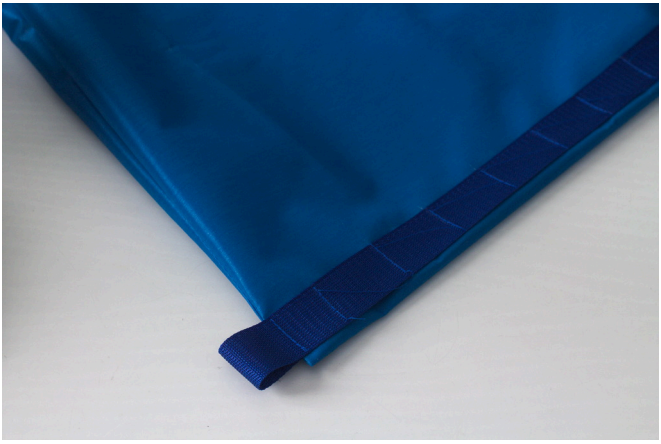
Do however backstitch at the start and end of all seams, for stability.

Binder clips are useful to keep things in place without making holes, even if they can't do miracles on extra slippery fabric like silnylon.

Fold the fabric in half on the long edge to find the middle, and put the webbing on the right side, centered on the fabric; open the fabric. Starting from the center of the webbing measure every 4 cm and sew it to the main body, backticking on each seam.

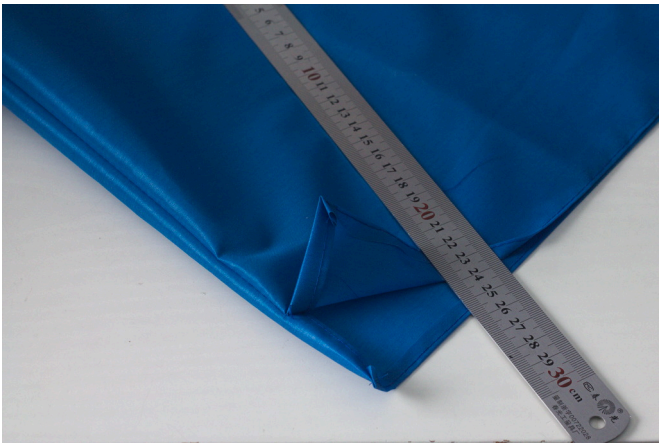
Fold the long sides towards the wrong side by 1 cm, sew 1-2 mm from the fold, leaving the webbing free.

Place the right sides together, folding the webbing so that its edge is aligned to the (just folded) edge of the fabric, sew the sides with 1 cm allowance, stopping 5 cm from the top; turn inside out.



Sew and backtack on the webbing at about 1 mm from the border to stabilize the loop.

Fold down the top edges by 1 cm, sew again 1 mm from the edges.



Fold down again 2.5 cm and sew to create a channel for the drawstrings, backticking near both side seams to add stability.

The channel will have two openings: insert the cords so that they exit from the opposite corners, make a few knots at the bottom and attach them to the webbing loops with minibiners so that you can adjust the lenght.

2.2 Modular Backpack Base

This is a basic day pack with MOLLE knock-off/compatible webbing, so that it can be expanded with accessories.

It isn't a beginner's project, as it requires quite some sewing confidence and a sewing machine able to sew through multiple layers of heavy materials and sew both straigt and zig-zag stitches.

2.2.1 Materials

You will need:

- 60 cm outer fabric (e.g. coated cordura);
- 70 cm lining fabric (e.g. ripstop nylon or uncoated, lightweight cordura);
- a piece of 3D mesh less than 60 cm × 42 cm;
- two pieces of rigid padding about 30 cm × 42 cm: a rigid foam, or a rigid sheet plus softer foam
- a piece of heavy padding less than 30 × 42 cm (for the back): 8-10 mm EVA foam or neoprene;
- a piece of lighter padding less than 30 × 42 cm (for the shoulder straps): 3-4 mm EVA foram or neoprene;
- 10 meters 2.5 cm webbing (with the color scheme in the pictures this would be a bit more than 3 meters in the fabric color and a bit more than 6 meters in the accent color);
- 7 meters twill webbing to bind the raw edges:
- 1 meter waterproof zipper plus sliders etc (to make a 90 cm long zipper);
- 33 cm round or thin elastic;
- 1 handle;
- termoplastic sewable feet;
- 2 ladderlocks;
- 2 side release buckles;
- heavyweight sewing thread (regular all purpose thread isn't strong enough).

2.2.2 Pattern

The pattern is available in the following formats:

`componible_backpack_base.val` valentina file where the measurements can be customized;

`componible_backpack_base-copyshop.pdf` A0 PDF file for copyshop printing;

`componible_backpack_base-A4.pdf` A4 tiled PDF file for home printing.

the latter two formats are based on a finished measurement of 30 cm × 42 cm × 15 cm (width × height × depth) with 1.2 cm left for the zipper.

2.2.3 Instructions

Tip: Any time coated / water resistant fabric is involved, only use pins in the sewing allowance, and use a long seam (e.g. 4 mm) to minimize holes in the coating and preserve the water resistance. Binder clips are useful to keep things together while sewing, and so is masking tape, depending on the cases. In the pictures you can see what I used in most cases.

Tip: When working with webbing and edgebinding measure the amount you need, cut and seal the edges with a flame to prevent fraying.

Tip: When sewing TPU-coated fabric sometimes the machine may have issues carrying it; in that case put a piece of tissue paper on the coating while sewing and rip it out afterwards.

Cut all fabric and lining parts according to the pattern, using the given sewing allowance (usually 2.5 cm). Cut the padding according to the pattern, without the sewing allowances. Cut the rigid padding about 5 mm smaller than the pattern.

Attach the webbing and other accessories to the fabric panels.

Cut 8 pieces of webbing as long as the front panel is wide, seal their edges; draw transversal lines at the center and every 4 cm to both edges using chalk or a similar disappearing marker.

Put the webbing on the right side of the front panel, starting 5.5 cm from the top, and sew on every mark, backtacking once on every line.

Cut 8 pieces of webbing 15 cm long, seal their edges on a flame, fold down one end 2 cm and sew. Also cut 4 pieces of webbing 60 cm long, seal their edges.

Put this webbing on each side panel, with the unfolded edge aligned to the back edge of the panel and sew every 4 cm from seam near the folded edge. Start 3.5 cm from the bottom with a short piece, then a long one, 3 short, another long and a short one near the top.

Attach the handle to the top panel, aligning the webbing edges with the edges of the panel. If you want also attach a piece of webbing as long as the top panel towards the back, sewing as usual at the center and every 4 cm.

Sew the pads to the bottom panel.

Prepare the lining pieces

Take the inner pocket lining piece, zigzag the top edge, fold it down 1 cm and again 2 cm, sew 1-2 mm from the bottom fold to create a channel for the elastic.

Place the elastic in the casing, put the wrong side of the pocket on the right side of the back panel lining with a pleat at the center bottom, sew all around

with a seaming allowance of 1.5 cm, backticking over the elastic.

Attach the padding to the back

Bind the edges of the 3D mesh that will be visible with the twill webbing.

Baste by hand the heavy padding to the fabric back panel with a few stitches.

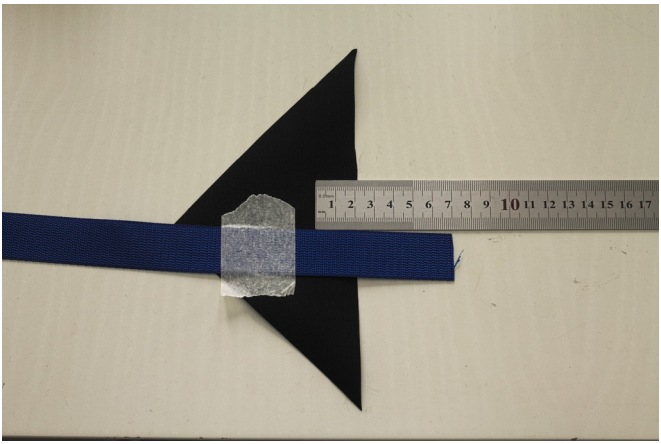
Put the 3D mesh on top and sew near the edge of the mesh, enclosing the padding.

Prepare the shoulder straps

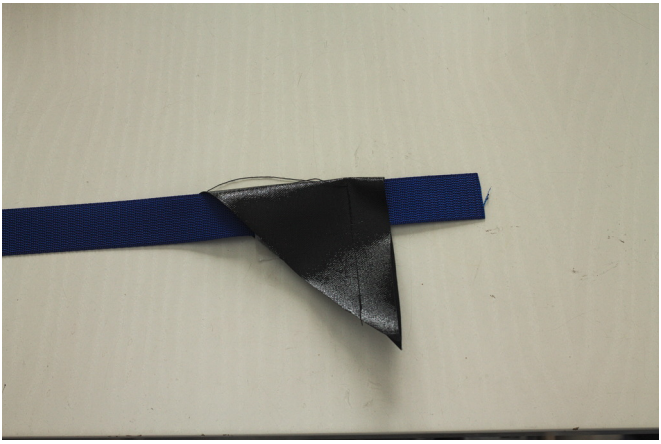
Sandwitch the light padding pieces between a layer of fabric and one of 3D mesh, bind the edges with the twill webbing.

Cut two pieces of webbing 46 cm long, seal the edges and sew them to the shoulder straps near the top and every 8 cm, attaching the triglides near the bottom.

Cut two pieces of webbing 70 cm long, seal their edges.

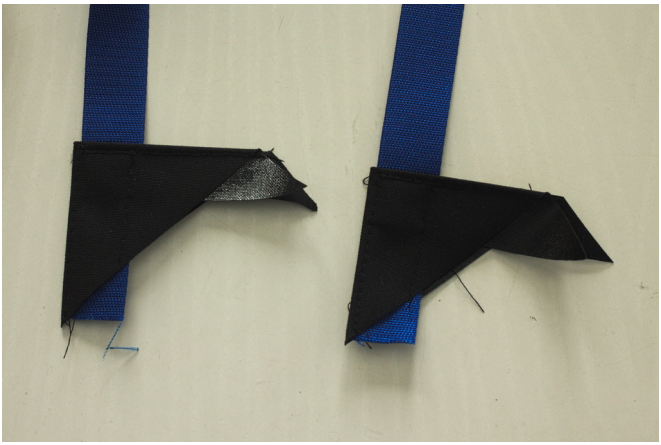


Put one end on the right side of one small triangle of fabric, so that one edge goes from one corner to the middle of the long side, and there are 5 cm of webbing beyond the long side.



Fold the triangle in half, right sides facing, and sew 2.5 cm from the long edge.

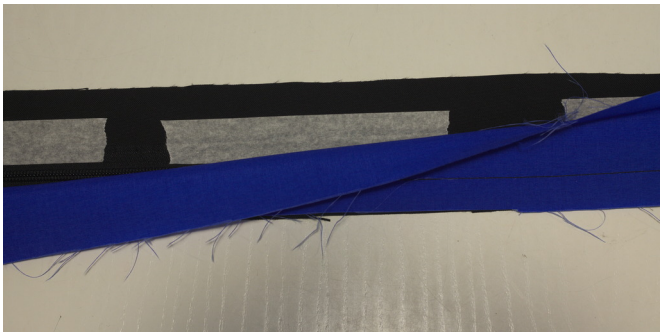
Turn the triangle inside out, topstitch near the edges of the webbing.



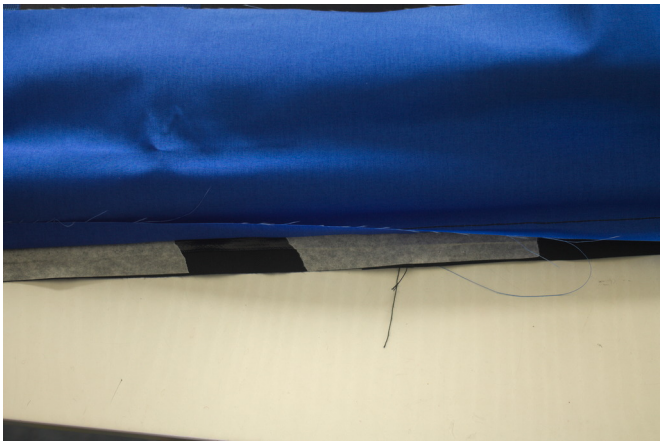
Assemble the sides / add the zipper

Place the top and one side panel of the fabric right sides together, sew the short side; repeat with the other side panel. Open the seam and (finger-)press the allowances towards the sides.

Place the right side of the zipper on the right side of the front side panel (the thin one that is in one piece) and place the right side of its lining on top of



both; sew so that thr zipper is sandwitched between the two layers and turn them inside out so that the zipper protudes.



Place the right side of the zipper and assembled panel on the right side of the back side/top panel (the one assembled from the sides and top) and place the right side of its lining on top of both; sew as above and turn inside out.

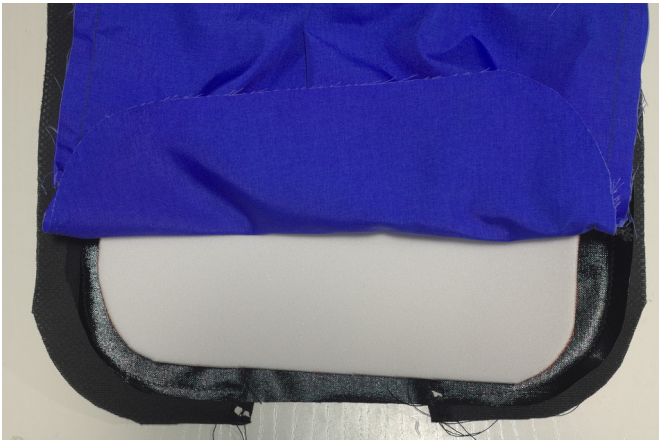
Insert the zipper pulls in the assembled top/sides.

Baste the lining

In this step we will attach all lining pieces to their fabric ones, wrong sides facing with a wide zig-zag stitch, so that they are easier to treat them as one while assembling the backpack and to prevent the raw edges from fraying before they are covered with tape.

Sew the lining and fabric of the top/side panels on the remaining raw edges.

Sew the lining to fabric of the bottom panel.



Sandwitch the rigid padding between the lining and the fabric of the front panel, sew all around the edges.

Sandwitch the rigid padding between the lining (including the pocket) and the fabric of the back panel, sew all around the edges.

Assemble the backpack

Sew the shoulder straps and the lower strap triangles to the back panel, 1.5 cm from the edge.

Place the bottom panel on the top/side panel, right (fabric) sides facing, sew on both short edges. Fingerpress the raw edges towards the bottom and bind them with twill webbing.

Place the right (fabric) side of the top/bottom/sides on the right side of the back, sew all around. You may have to clip the raw edges near the curves before sewing.

Open a few centimeters of the zipper.

Place the right (fabric) side of the top/bottom/sides on the right side of the front, sew all around. As above if needed clip the raw edges before sewing.

Bind the remaining raw edges with the twill webbing (this will require two pieces of twill webbing 157 cm long).

Turn the finished backpack inside-out, enjoy it and start planning accessories. :)

CHAPTER

3

CASES

3.1 Knitting Needles Roll

This is a fabric roll to store knitting needles, designed to fit precisely sets of double pointed needles of known sizes.

3.1.1 Materials

Fabric

- Scraps or ~25 cm sturdy printed cotton for the outer layer.
- Scraps or ~25 cm stable but soft cotton for the lining.

Notions

- Bias tape, 1.5 cm wide when folded:
- Ribbon
- Sewing thread

3.1.2 Pattern

The pattern is made of simple rectangles; to make a roll that precisely fit a set of DPN you can use the following python code: enter the sizes in mm of the needles you want to fit as a tuple, e.g.:

```
> sizes = (
    2.00, 2.25, 2.50, 2.75,
    3.00, 3.25, 3.50, 3.75,
    4.00, 4.50, 5.00, 5.50,
    6.00, 6.50, 7.00, 8.00
)
```

and then calculate the sizes of the slots and the width of the finished roll:

```
> [math.ceil(s * 5 / 5) * 5 for s in sizes]

[10, 15, 15, 15, 15, 20, 20, 20, 20, 25, 25, 30, 30, 35, 35, 40]

> sum([math.ceil(s * 5 / 5) * 5 for s in sizes]) + 30

400
```

And the height of the roll should be the height of the needles, plus 4 cm (e.g. for 20 cm needles it will be 24 cm).

The part of lining that holds the needles will have to be wider: calculate the slots and total width with the following python code:

```
> [math.ceil(s * 7 / 5) * 5 for s in sizes]

[15, 20, 20, 20, 25, 25, 25, 30, 30, 35, 35, 40, 45, 50, 50, 60]

> sum([math.ceil(s * 7 / 5) * 5 for s in sizes]) + 30

555
```

its height, finished, should be 3/4 of the height of the full roll (in our example 18 cm).

Finally, the finished top flap should be 3 cm less than the width of the full roll, with 1 cm sewing allowance on the sides, and 1/3 of the height of the full roll, in our example 37 cm × 8 cm.

Cut the following pieces:

- base: cut 1 in fabric and 1 in lining, as wide and as tall as the base, calculated above (e.g. 40 cm × 24 cm);
- needle holder: cut 1 in lining, as wide as calculated above and twice as tall (e.g. 55.5 cm × 36 cm);
- top flap: cut 1 in lining, as wide as calculated above plus 1 cm sewing allowance *per side* and twice as tall (e.g. 39 cm × 16 cm.

3.1.3 Instructions

Fold the needle holder in half, wrong sides facing, press.

Mark with chalk or a vanishing pen the channels measured above on the lining base and on the needle holder;

Place the lining base with the right side on top, and carefully align the needle holder over it such that its long raw edge (opposite to the fold) is aligned to the base, and the center seam matches. Pin in place and sew the center seam.

Moving towards the sides, align each seam between the base and the needle holder, pin, sew, and then work on the next seam. At the end the short sides of the needle holder should match the short sides of the base.

Make a box pleat at the bottom of each channel, pin them and sew along the long raw edge, about 1 cm from it.

Prepare the top flap: turn it with right sides facing and sew the short sides with 1 cm allowance. Clip the corners, turn inside out and press.

Attach a piece of ribbon to the fabric base, close (about 3 cm) to the center of one of the short edges, and any label or embellishment you want to add to the top.

Place the base fabric and base lining + needle holder wrong sides together, sew along the sides and bottom edge, about 1 cm from it, being careful not to sew the ribbon. Place the top flap centered on the top side of the lining, and sew also the top edge 1 cm from it.

Turn the roll with the fabric side on top; starting from the short edge with the ribbon sew the bias tape all around the edges, taking care to miter the corners.

Turn the bias tape towards the inside, whipstitch it in place by hand.

3.1.4 Variants

Flat needle slots

Instead of making box pleats at the bottom of the needle rolls you can make the base and needle holder the same size, and sew the bottom flat.

In this case, the python code to calculate the width of the slots becomes:

```
> sizes = (
      2.00, 2.25, 2.50, 2.75,
      3.00, 3.25, 3.50, 3.75,
      4.00, 4.50, 5.00
  )

> [math.ceil(s * 6 / 5) * 5 for s in sizes]

[15, 15, 15, 20, 20, 20, 25, 25, 25, 30, 30]
```

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```
> sum([math.ceil(s * 6 / 5) * 5 for s in sizes]) + 30

270
```

and in this example for a set of 13 cm DPNs the fabric to cut would be:

- base: cut 1 in fabric and 1 in lining, 27 cm × 17 cm;
- needle holder: cut 1 in lining, 27 cm × 26 cm;
- flap: cut 1 in lining, 24 * 12.

When assembling, you can then mark the channels just on the needle holder, pin it in place aligned to the base at the bottom and short sides, and sew all the channels at the same time.

Everything else remains the same.

3.1.5 Gallery

3.2 Neoprene Laptop Sleeve

A simple neoprene sleeve to protect laptops while carrying them inside bags, backpacks, etc in two views: A with rounded corners, and B with straight corners for laptops that are especially pointy.

It can be sewn by hand or by machine; view B has tight corners and sewing it by hand is recommended.

Fig. 1: View A of the sleeve; see the gallery below for a picture of view B.

3.2.1 Materials

Fabric

- A piece of neoprene about as wide as the laptop and a bit more than twice as high.

Notions

- Strong polyester sewing thread, such as the same one used in the *Modular Backpack Base*.
- elastic edge binding braid, about 2.5 times the width of the laptop;
- regular sewing polyester thread that matches the braid.

3.2.2 Pattern

Measure snugly around the thickest part of the laptop both horizontally and vertically.

Get the valentina pattern `laptop_sleeve.val` and enter the measurements in the Variables Table.

Alternatively, for view A you can draw three rectangles: the base is half the circumference measurements, the top and bottom front are as wide as the base and 1/3 and 2/3 its height plus 3 cm respectively. Round all corners with a radius of 4 cm.

For view B, make just one rectangle, as big as the three rectangles above, and round its corners with the same radius.

You can also download an example pre-rendered pattern of view A for the Thinkpad X200, whose circumference measurements are 47 cm vertically and 65 cm horizontally.

`laptop_sleeve_x200.pdf` view A, single page PDF;

`laptop_sleeve_x200_tiled.pdf` view A, tiled PDF on A4.

Or view B for the Olimex Teres, with measurements 42 cm horizontally and

`laptop_sleeve_teres.pdf` view B, single page PDF;

`laptop_sleeve_teres_tiled.pdf` view B, tiled PDF on A4.

3.2.3 Instructions

All structural seams are done with strong thread by abutting the two neoprene parts and either using a wide zig-zag stitch on the machine or with an herringbone stitch on both sides of the fabric if sewing by hand.

View A

Cut parts A, B and C of the pattern in the neoprene.

Carefully align part C to the side of part A and sew the side, bottom and other side, starting and ending just below the rounded corner of part C. Push the neoprene to keep it aligned when going around the corners.

Do the same to part B, sewing the side, top and other side to the base A.

View B

Fold up the bottom part of the neoprene on the marked line, sew the sides starting from the bottom and going up until just below the rounded corner.

Do the same to the top part of the neoprene.

Both views: edge binding

Starting from the center of the bottom flap, cover the raw neoprene edge with binding braid and either topstitch it down by machine or, recommended for best results, whipstitch it by hand on both sides, using regular sewing thread in either case and going carefully around the corners where the flaps and base meet.

3.2.4 Gallery