

# Solar Flares

*Design and photos by Anna Mäkilä (FB: Katse kantapäihin, Instagram @katse\_kantapaihin)*



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A solar flare is a sudden flash of increased brightness on the Sun, usually observed near its surface. It is one of the manifestations of solar activity, like sunspots. Solar flares last from minutes to hours. On Earth, solar flares cause radio interference and northern lights.

Solar activity is hard to see with the naked eye, but maybe you can see it in these socks: bright solar flares and dark sunspots.

Solar Flares socks are knitted toe up and they have a Fleegle heel. The pattern allows you to play with colors. You can use a different color for each chart repetition or knit socks in just two colors.

## You will need:

Fingering-weight sock yarn. The sample was knitted in:

Main color: 60 g of one yarn or different leftovers. You need 1-2 g for each chart repeat.

Contrast color: 35 g Hedgehog Fibres Sock (75 % wool, 25 % polyamide; 400 m / 100 g) in colorway Egg Yolk

Needles: circular needles (or DPNs) 2.00 and 2.25 mm or size needed to obtain correct gauge, tapestry needle and 2 stitch markers (optional). The pattern is written for magic loop, but you can use DPNs or 2 circular needles as well.

**Gauge:** 32 sts and 42 rnds = 10 cm (4 inches) in colorwork with larger needles

**Sizes:** S (foot circumference 19.5 cm/7.5 inches), M (foot circumference 22 cm/8.5 inches), L (foot circumference 25 cm/9.75 inches), XL (foot circumference 27.5 cm/10.75 inches). The lengths of both the foot and the leg are easy to adjust.

## Abbreviations:

CC – contrast colour

MC – main colour

k – knit

kfb – knit first through the front and then through the back loop

k tbl – knit through the back loop

k2tog - knit 2 sts together

p – purl

p2tog tbl– slip 2 sts knitwise one by one, return them to left needle and purl them together through the back loop

LLI - left-leaning lifted increase = insert left needle under left leg of stitch two rows below stitch on right needle and knit it through the back loop (<https://www.youtube.com/watch?v=6uU1cJ5XE34>)

RLI – right-leaning lifted increase = insert right needle under right leg of stitch one row below stitch on left needle, lift the stitch to left needle and knit it (<https://www.youtube.com/watch?v=hHzZ8JXjwr4>)

rnd(s) – round(s)

sl – slip stitch purlwise

st(s) – stitch(es)

RS – right side

WS – wrong side

## Toe

With MC and smaller needles cast on 18/22/24/28 sts using the toe-up cast-on of your choice. I suggest using the Turkish cast on <https://www.garnstudio.com/video.php?id=96&lang=fi>. Divide stitches evenly over both needles: with needle 1 you will knit the instep and the front of the leg, with needle 2 the sole, the heel and the back of the leg.

Knit 1 rnd, then start to increase:

Rnd 1: On the instep kfb, knit to the last 2 sts, kfb, k1. Repeat on the sole.

Rnd 2: Knit all sts.

Repeat rnds 1 and 2 until you have 62/70/80/88 sts, 31/35/40/44 sts on both the instep and the sole. End with rnd 2.

## Foot

Attach CC and change to larger needles if necessary to maintain gauge. On the instep start Chart A1/A2/A3/A4, depending on your size (S, M, L, XL). Repeat on the sole. Be careful after the first repeat of Chart A1/A2/A3/A4: you need to adjust last 1/3/1/3 sts so that checkered stitches continue over the beginning of the round.

Continue rows 1–9 of Chart A1/A2/A3/A4, changing checkered stitches so that they continue nicely. Work colorwork until the foot measures about 8/9/10/11 cm (3.25/3.5/4/4.25 inches) less than desired finished length. For the best result end after row 8/4/9/5 of Chart A1/A2/A3/A4, so the gusset will end nicely with the last row of the chart.

## Heel

The Fleegle heel gussets are worked in the round. You may wish to place stitch markers to indicate the beginning of the gussets.

On the instep, continue to work the next row of Chart A1/A2/A3/A4. Work sole as follows: work Chart B (right gusset), continue colorwork on 31/35/40/44 sole sts, work Chart C (left gusset).

Depending on your size, you may not complete all the rows of gusset charts.

Size S: Work rows 1–28.

Size M: Work rows 1–32.

Size L: Work rows 1–36.

Size XL: Work rows 1–40.

Rearrange your sts as follows:

- On the sole: 14/16/18/20 sts + 31/35/40/44 + 14/16/18/20 sts, making a total of 59/67/76/84 sts.
- On the instep: 31/35/40/44 sts.

Your working yarn is now at the beginning of the instep.

Work the next row of Chart A1/A2/A3/A4 on the instep. Make a note of which row you just knitted.

Remove stitch markers, if you have used them.

Start the heel turn in MC, but don't cut CC. Work back and forth as follows:

Row 1 (RS): K31/35/40/44, k2tog, k1, turn.

Row 2 (WS): Sl1, p4/4/5/5, p2tog tbl, p1, turn.

Row 3 (RS): Sl1, knit to the last st before the gap, k2tog, k1, turn.

Row 4 (WS): Sl1, purl to the last st before the gap, p2tog tbl, p1, turn.

Repeat rows 3 and 4 until there is 1 unworked st on each side of the heel turn, ending with row 4. You have 33/37/42/46 sole sts.

Resume working in the round. Pass the unworked heel st to left needle. Finish the heel with the same row of Chart A1/A2/A3/A4 that you knitted last on the instep, decreasing away the extra stitches by knitting the first 2 sts and the last 2 sts together. You now have 31/35/40/44 sts on both the instep and the heel. Your heel is finished.



## Leg

Continue knitting in the round. Work Chart A1/A2/A3/A4 twice in the round as previous, until leg measures about 3 cm (1.25 inches) less than desired finished length. Cut CC, you will end the sock with MC.

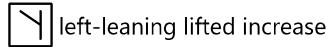
Change to smaller needles and knit 1 rnd. Work cuff according to Chart D1/D2/D3/D4. Knit Chart

D1/D2/D3/D4 twice in the round. Work cuff for 14 rnds or desired length. Bind-off using a stretchy bind off, e.g. the Russian bind off: <https://www.youtube.com/watch?v=ijTv52P4TgE>.

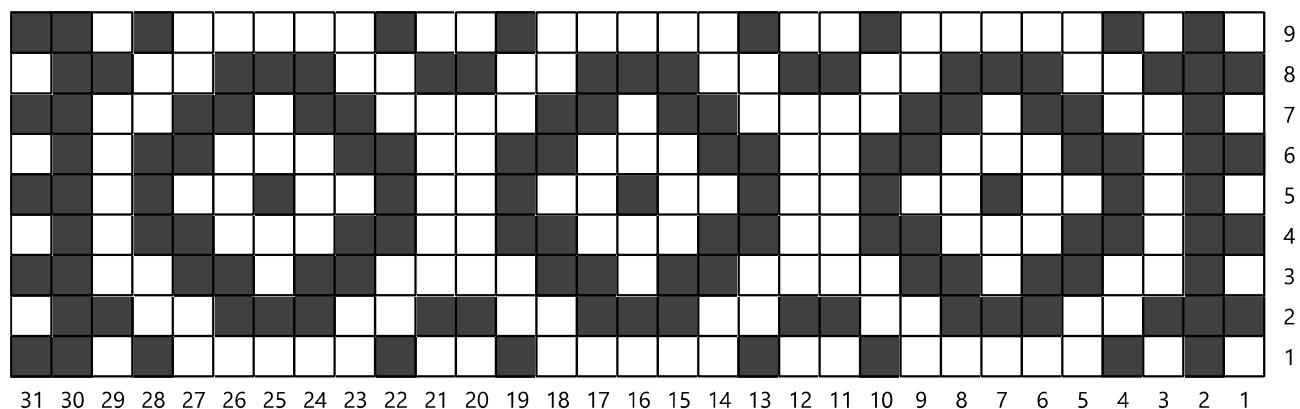


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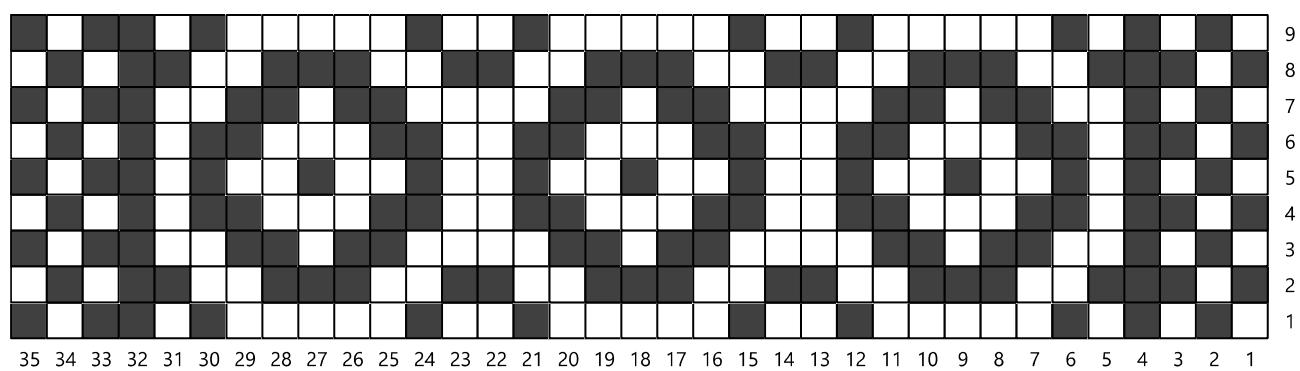
## Key



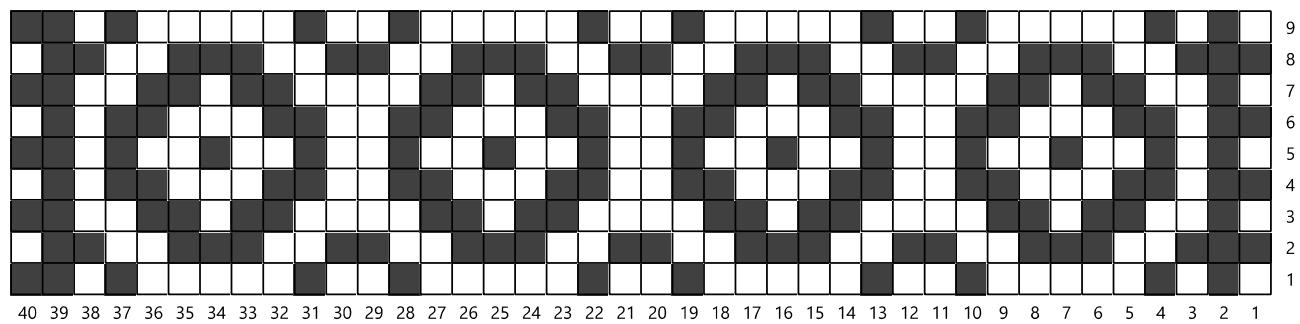
**Chart A1**



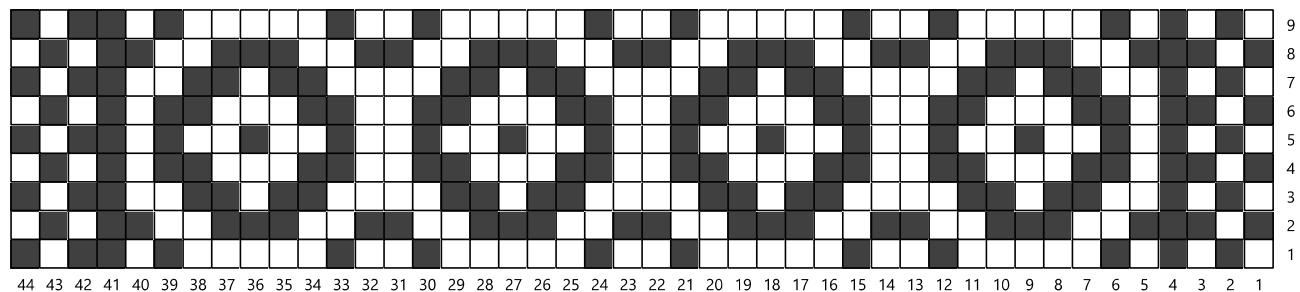
**Chart A2**

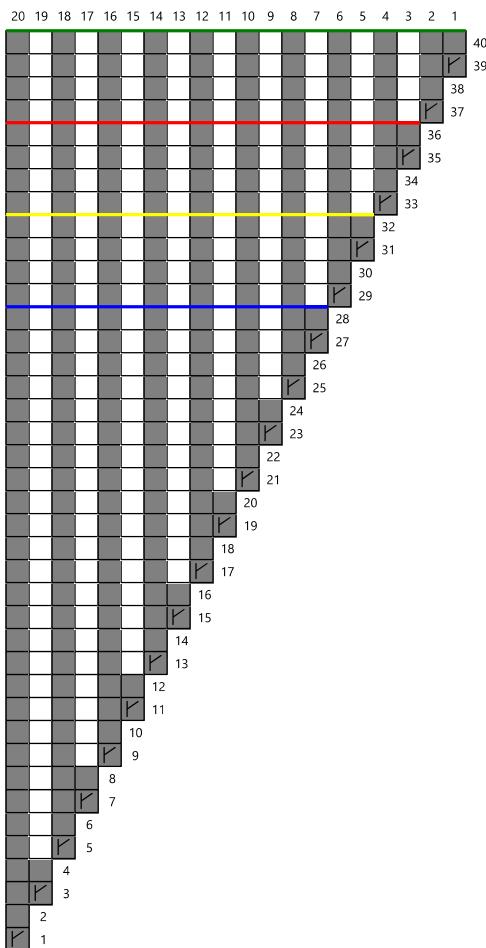
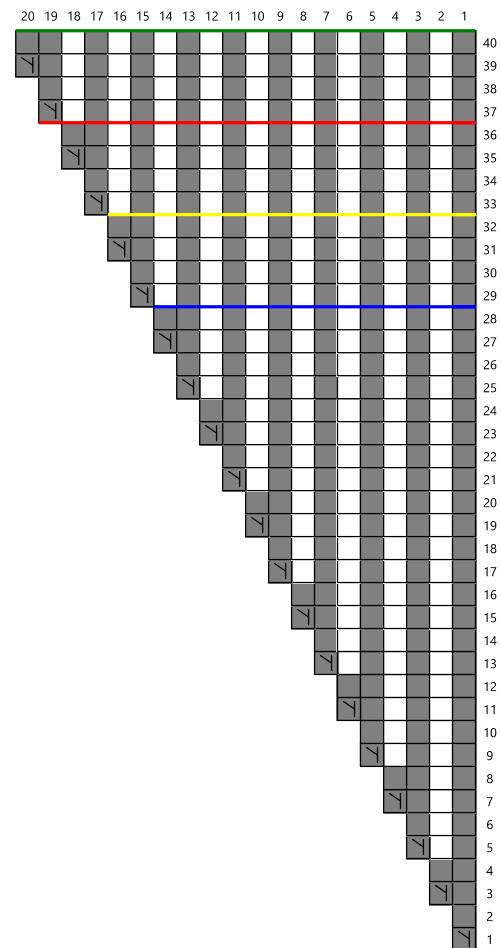
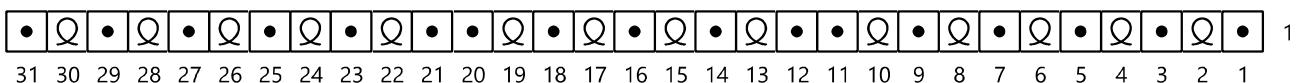
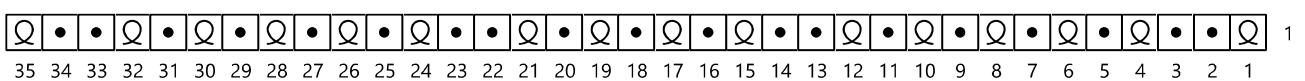
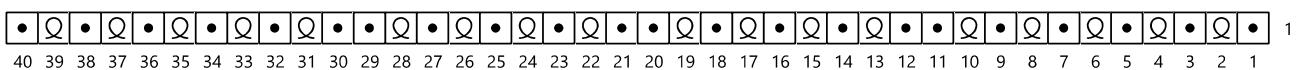


**Chart A3**



**Chart A4**



**Chart B****Chart C****Chart D1****Chart D2****Chart D3****Chart D4**