



Overhead drying rack




https://wiki.lowtechlab.org/wiki/Etendoir_suspendu/en

Dernière modification le 03/06/2026

 Difficulty Easy

 Duration 1.5-2 hour(s)

 Cost 0-25 EUR (€)

Description

Overhead drying rack, adjustable height system

Summary

Contents

Description

Summary

Introduction

Step 1 - Preparation of attachments

Step 2 - Preparation of traction lines

Step 3 - Fix the attachments

Step 4 - (see photos from step 3)

Step 5 - Connecting the attachments

Step 6 - (see photos for step 5)

Step 7 - Connecting the attachments - traction lines

Step 8 - Attaching the pulleys

Step 9 - Attaching the stopper mechanism

Step 10 - Traction line movement

Step 11 - Balance + attaching the system to the hook

Step 12 - (see photos for step 11)

Notes and references

Comments

Introduction

Do you live in a small apartment? Do you lack space for drying your clothes? Is your accommodation a bit too damp and your laundry therefore doesn't dry properly?

An accessible solution that optimises on space + the heat that rises towards the ceiling: *the overhead drying rack!* If your ceiling is high enough (at least 2.50m), this clothes rack will save you space and time.

For those of us who have a small home who might use tumble dryers because of the lack of space, this suspended clothes rack also helps to reduce the use of the dryer + reduce energy consumption as a result.



Materials

Several options for the main section:

- A part/shelf of a normal standing clothes rack
- A clean grill (e.g. from an oven or BBQ)
→ can be sourced second hand for 0-5€'
- DIY rack: wooden frame with string/rope fixed across the centre
→ Can be sourced for free (wood & string), but more difficult!'

- **For fixing the system to the ceiling, there are also a few different options:**

- 3 small pulleys (can attach directly to the ceiling, e.g. with screws)
→ ±10€
- 3 metal hooks, can also fix these directly onto the ceiling (also works for sliding the rope, see photos)
→ - de 10€
- 3D print the pulleys (a little complicated)
→ Almost free (except the time spent printing + the cost of the machine itself of course)
- Pipe segments to create a pulley (prototype)
→ 0 / a few €, but not very practical. This option requires additional attachments if the ceiling does not allow them to be suspended (with string for example, as in our prototype). It's also much less stable.

- **Locking/blocking mechanism for the rack:**

- 1 metal hook - can attach directly onto the wall
→ good idea to buy a pack of 4: allows you to attach both the stopping mechanism and attach it to the ceiling with the same type of hook
- If the wall already has something that the rope can be tied onto, e.g. a handle on the wall, you can use this instead, but make sure that the clothes rack can hang in line with it.

- **For the rest:**

- Strong rope (±10m)
→ ±0-5€
- A few screws (at least 8, depends on the wall/ceiling attachments you have available)
→ 0-1€

Tools

- Essentials: screwdriver, scissors
- Useful: lighter



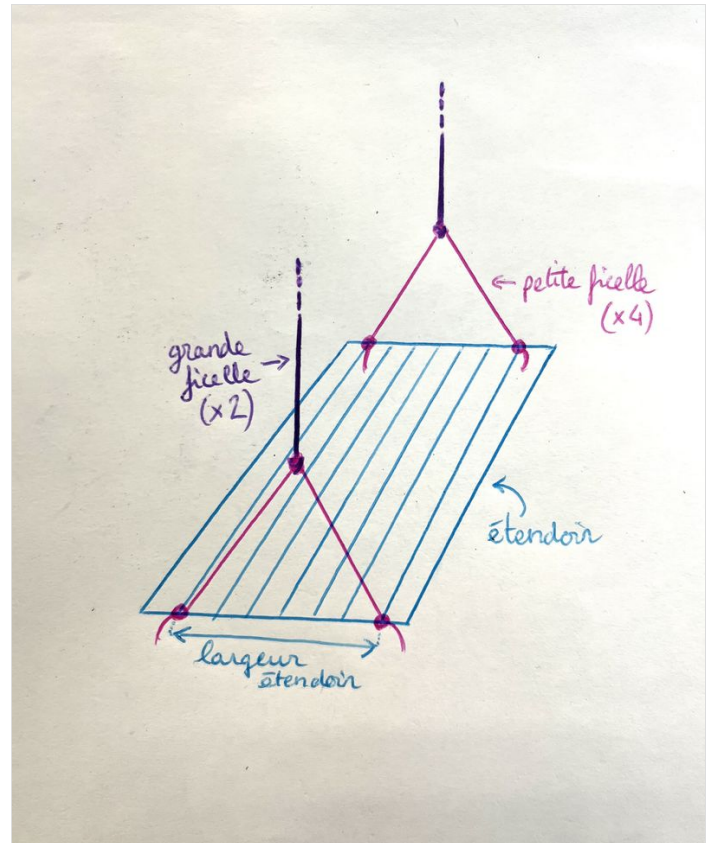




Step 1 - Preparation of attachments

Cut 4 pieces of rope measuring: 2x the width of the rack.
E.g. : our clothes rack measures 28cm in width, so cut rope lengths measuring 56 cm.'

NB: the ends of each rope can be carefully burnt with a lighter to prevent it from fraying (not essential but recommended to prolong the life of the clothes rack).



Step 2 - Preparation of traction lines

Cut a piece of rope with the following length:

Length of drying rack + distance between end of rack and the wall + 2x distance from the ceiling to the hanging area + 30 cm surplus (for knots).

In simpler terms, the calculation is: $L + P + 2xM + 30$ cm

→ See notations on the diagram

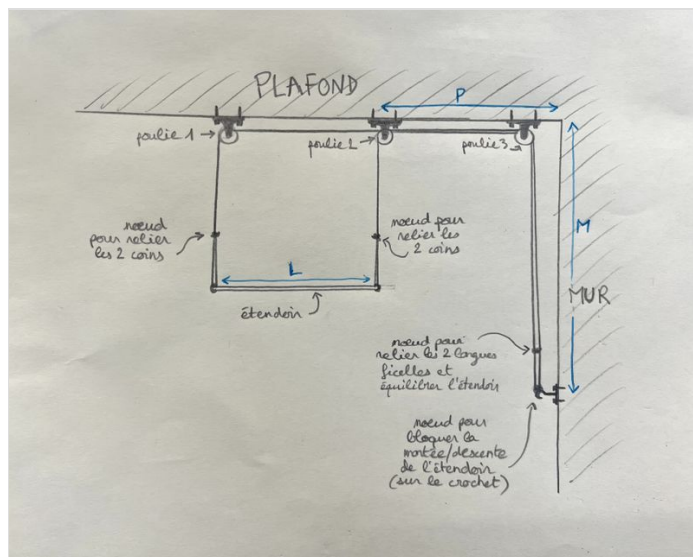
Cut a second piece of rope:

Repeat the same calculation by removing this time the length of the clothes rack, which is not necessary (the string will not have to travel that length when being used).

This gives two lengths of traction lines:

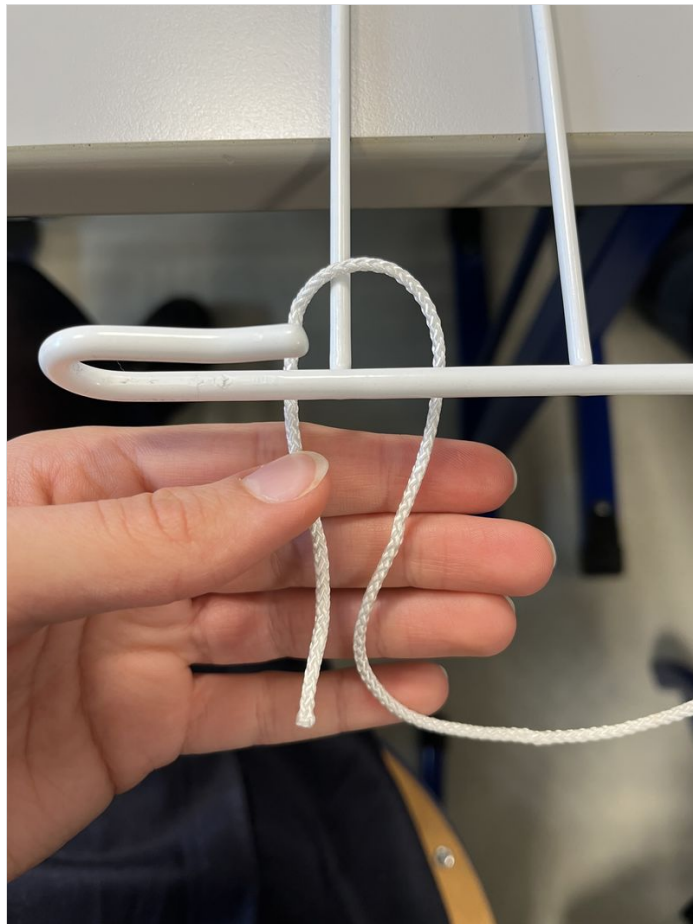
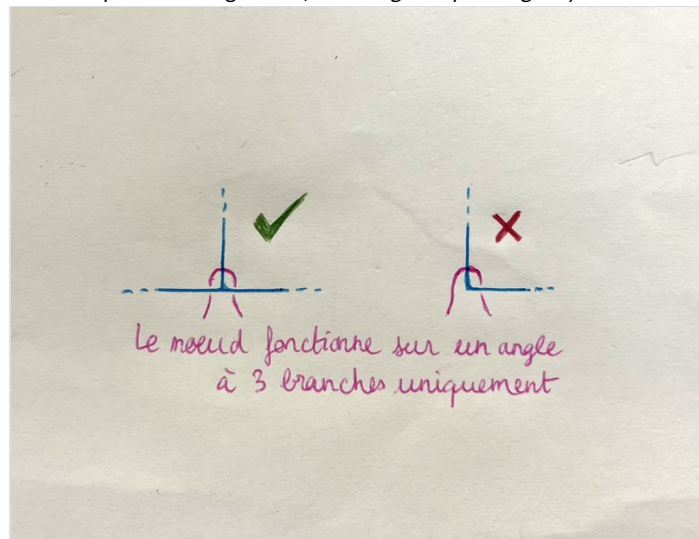
- $L + P + 2xM + 30$ cm
- $P + 2xM + 30$ cm

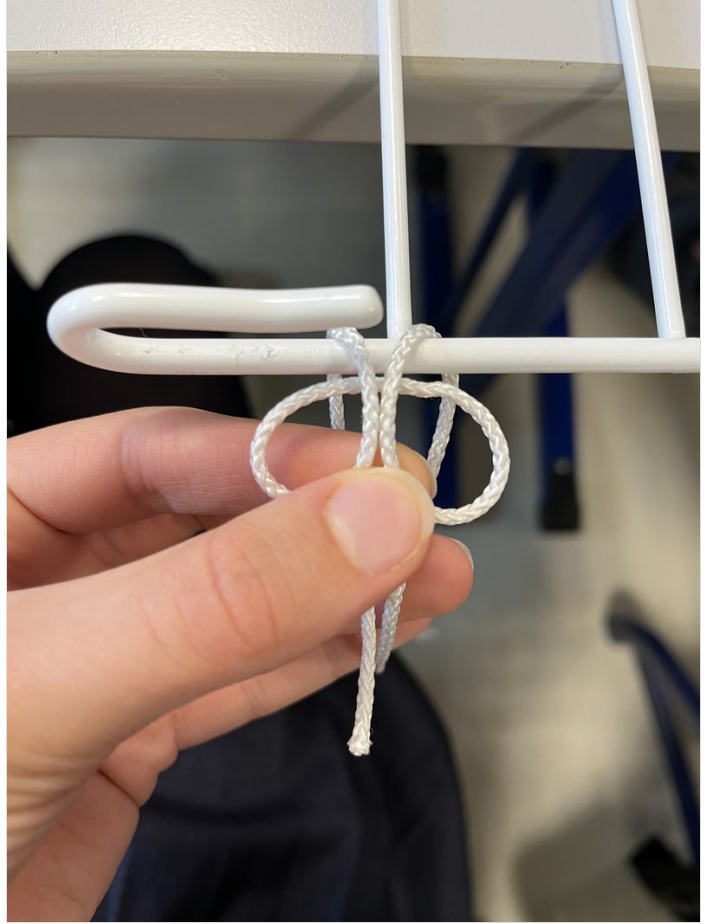
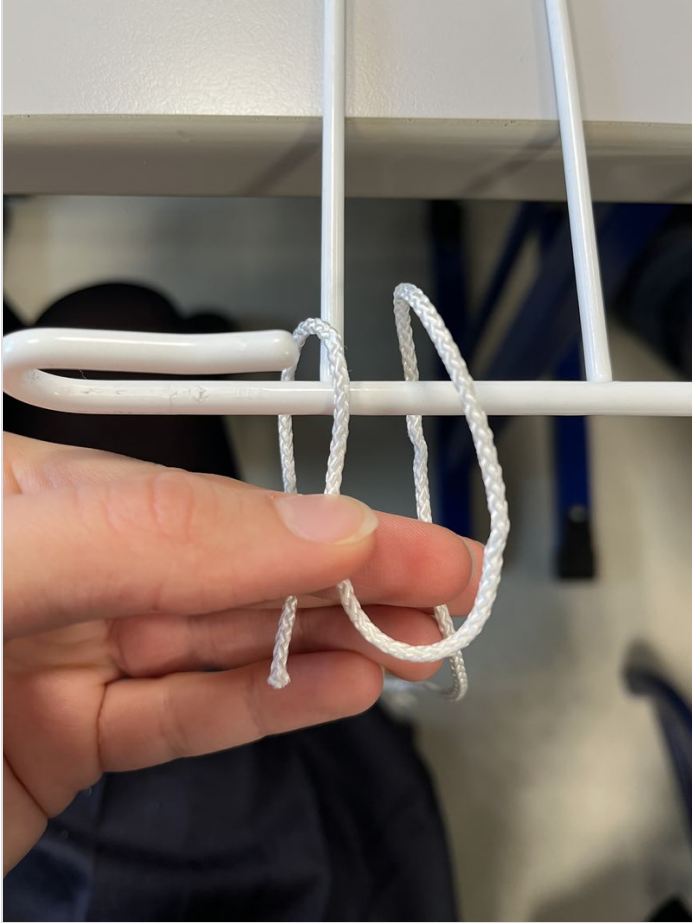
NB: to visualise this better, see diagram of the previous step.

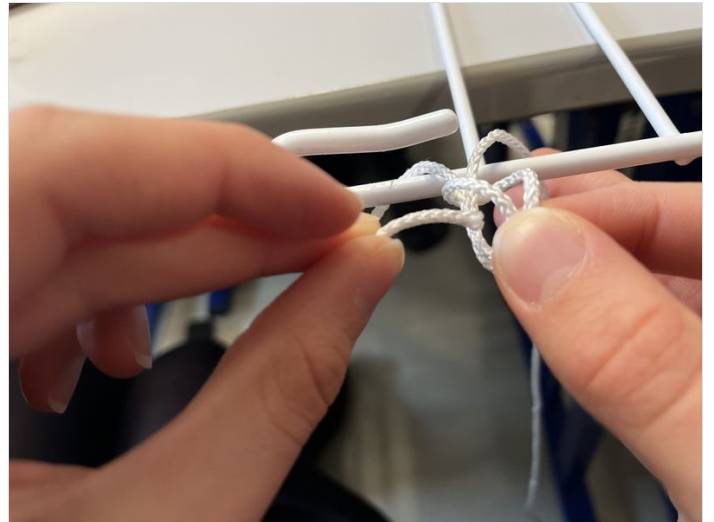


Step 3 - Fix the attachments

Attach rope measuring 56cm (alter length depending on your materials: see step 1) at each corner of the rack with a solid knot.

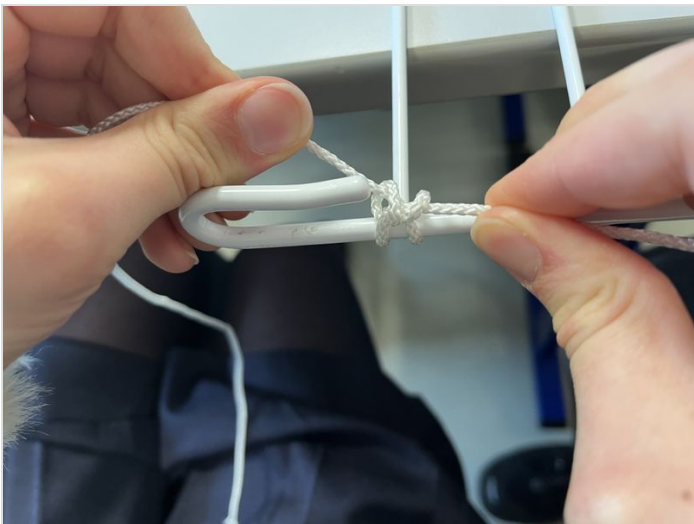
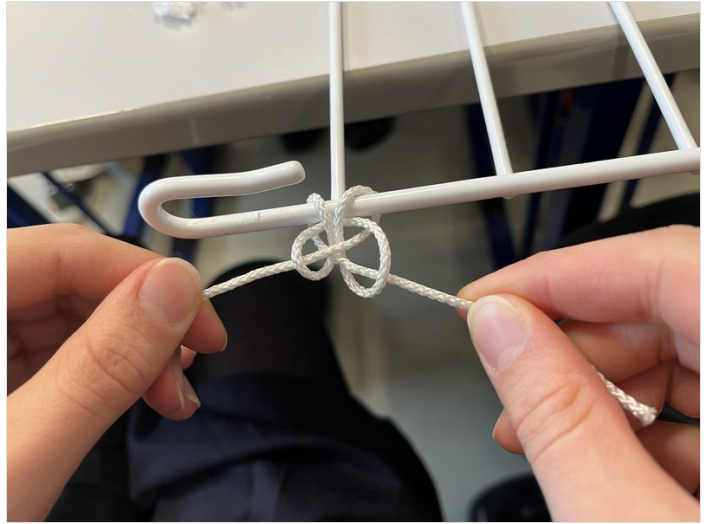
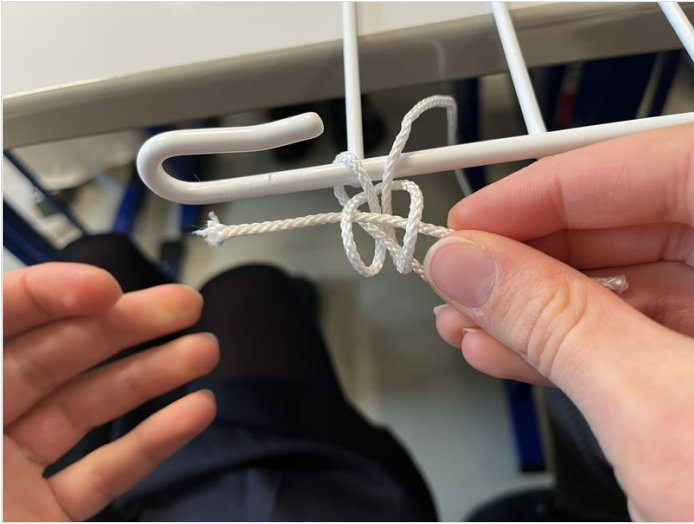
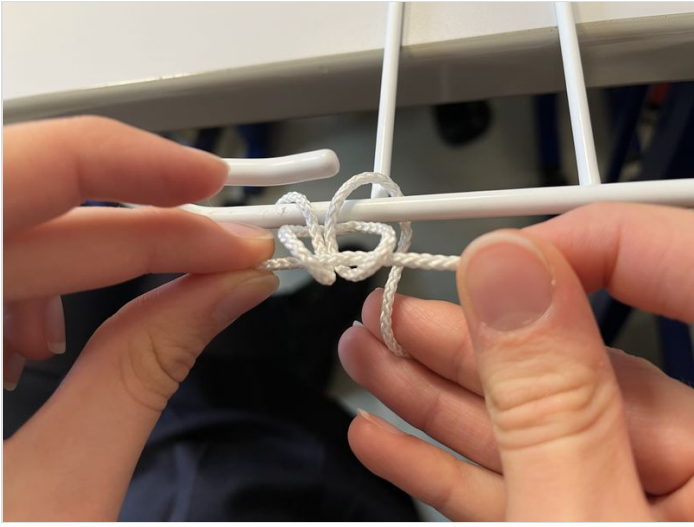






Step 4 - (see photos from step 3)

NB: use whatever knot you consider strongest.



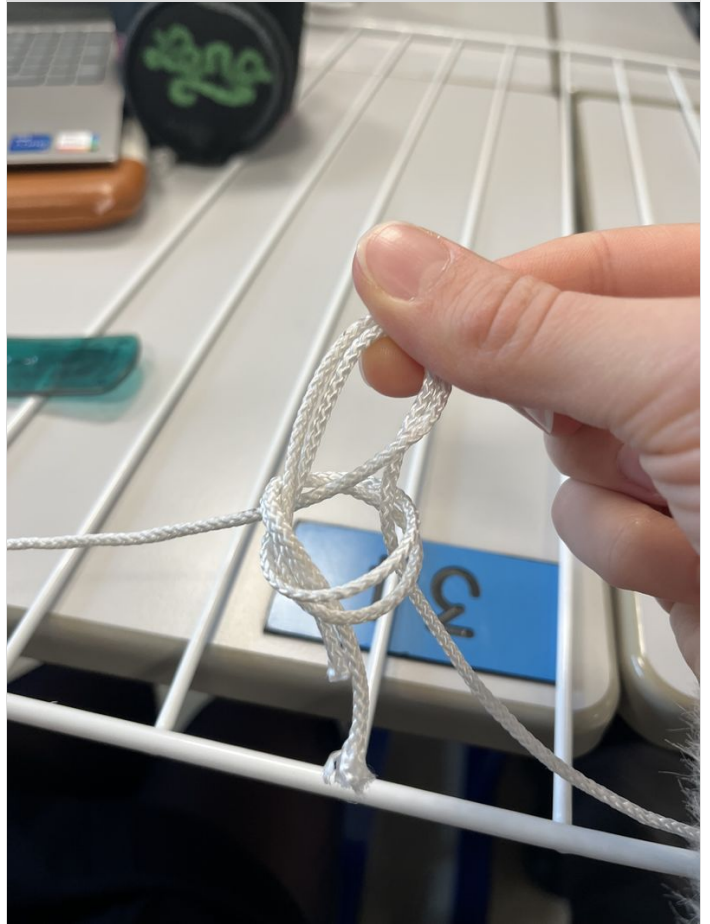
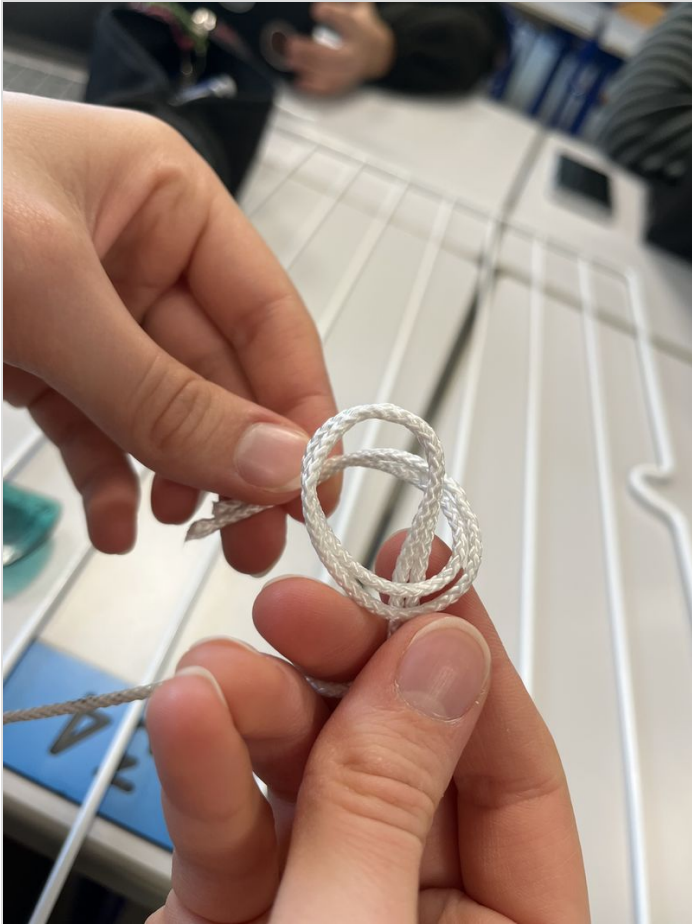
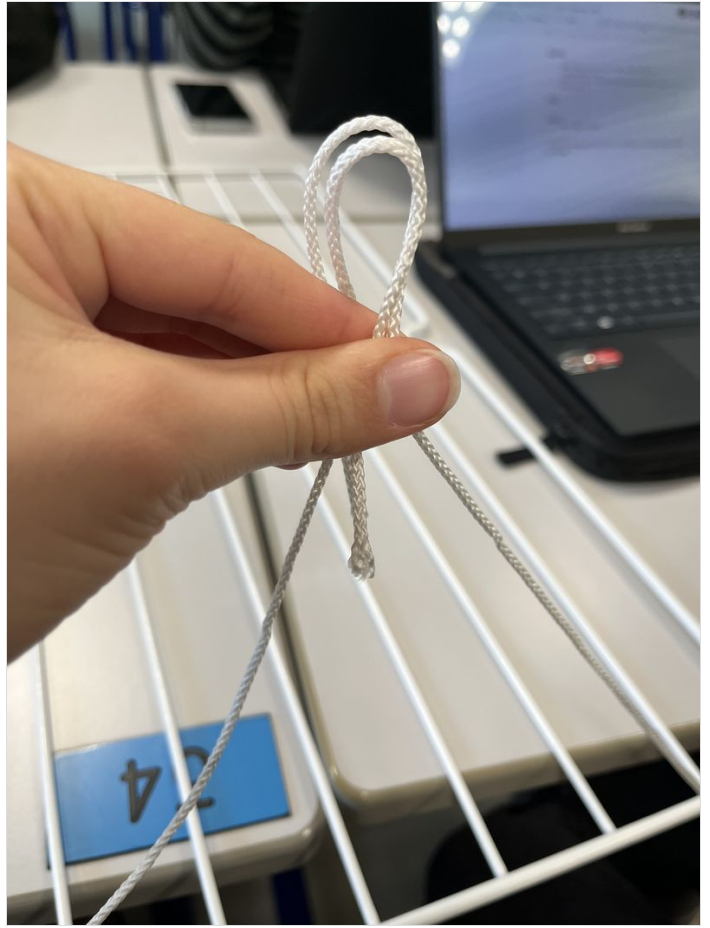
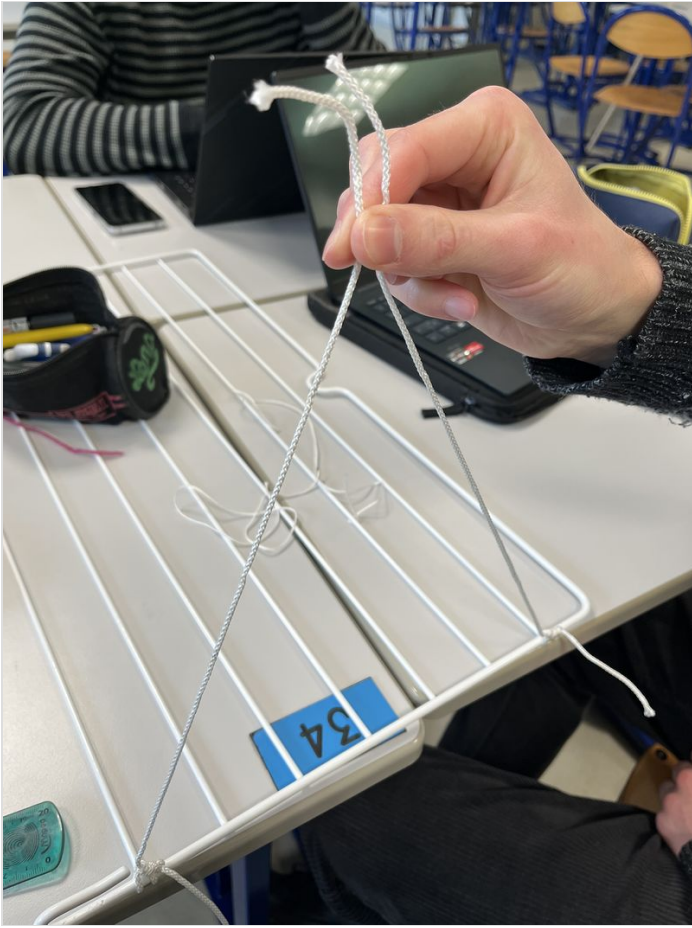


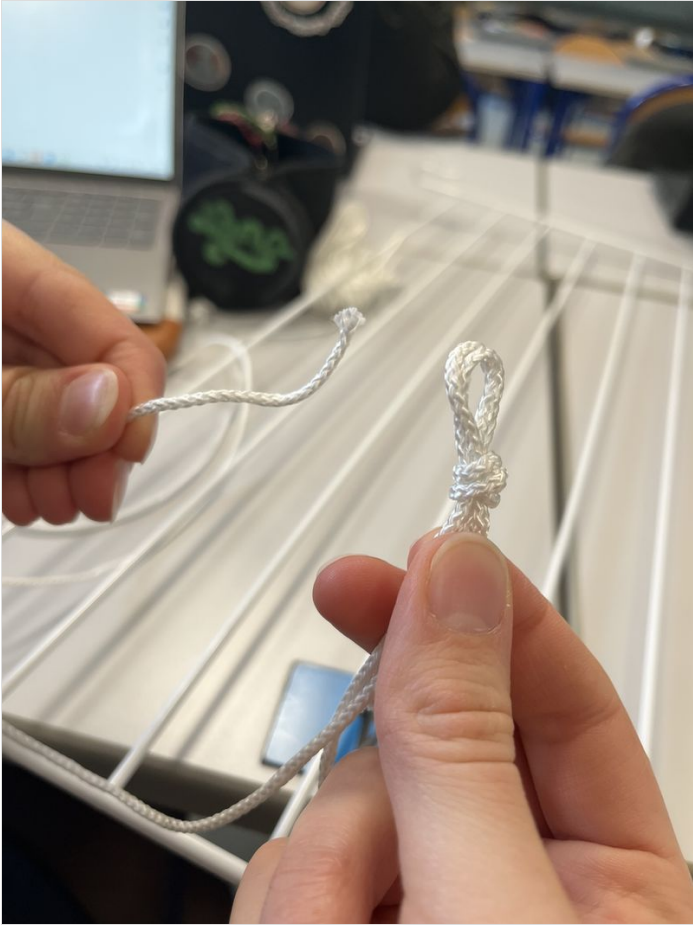
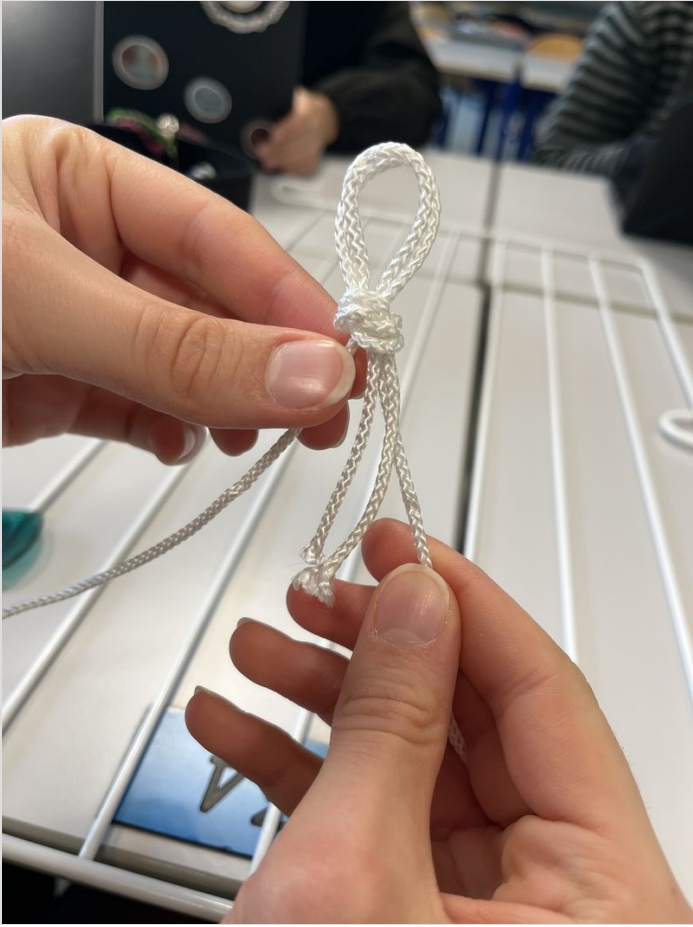
Step 5 - Connecting the attachments

Pour l'un des côtés de l'étendoir, relier les 2 "attaches" ensemble avec un nœud en boucle.

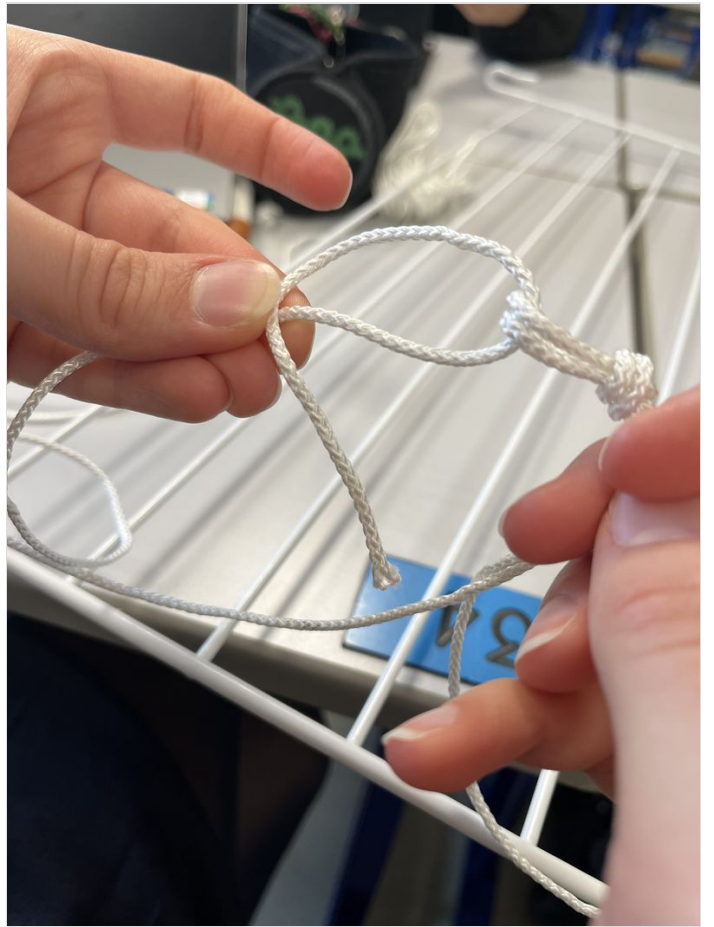
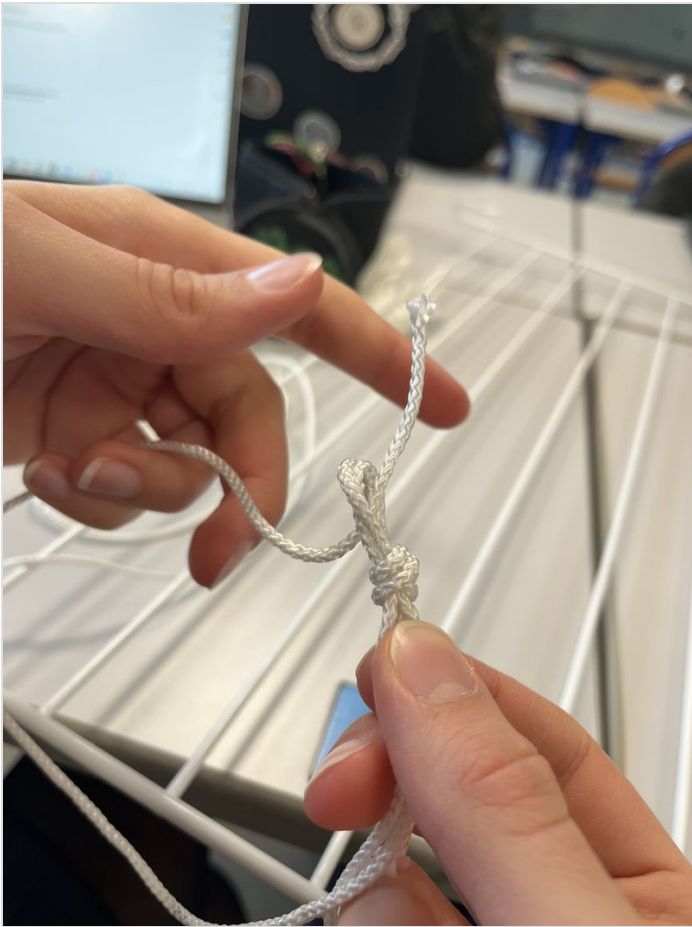
→ *When connecting the 2 "attachments," try to keep symmetrical (might need to decrease the length if too long)*

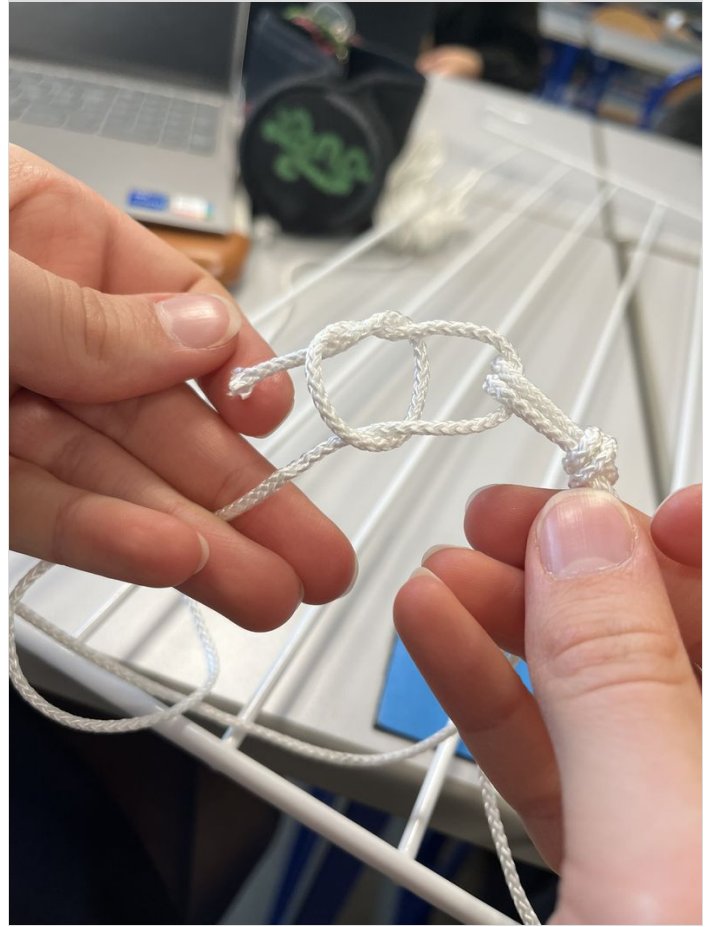
Do the same with the other side of the rack.

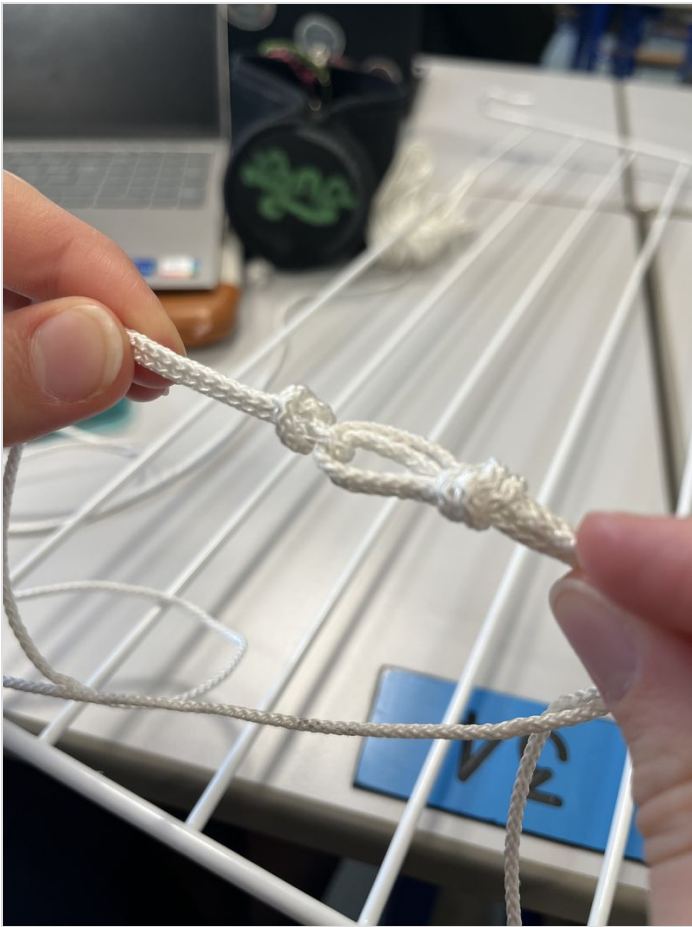




Step 6 - (see photos for step 5)



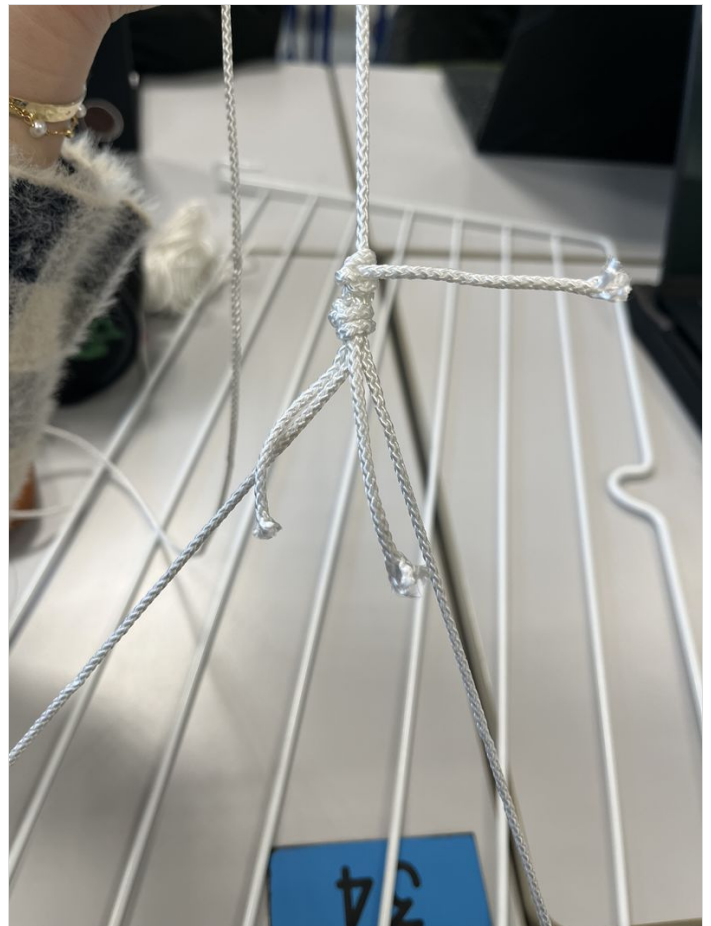
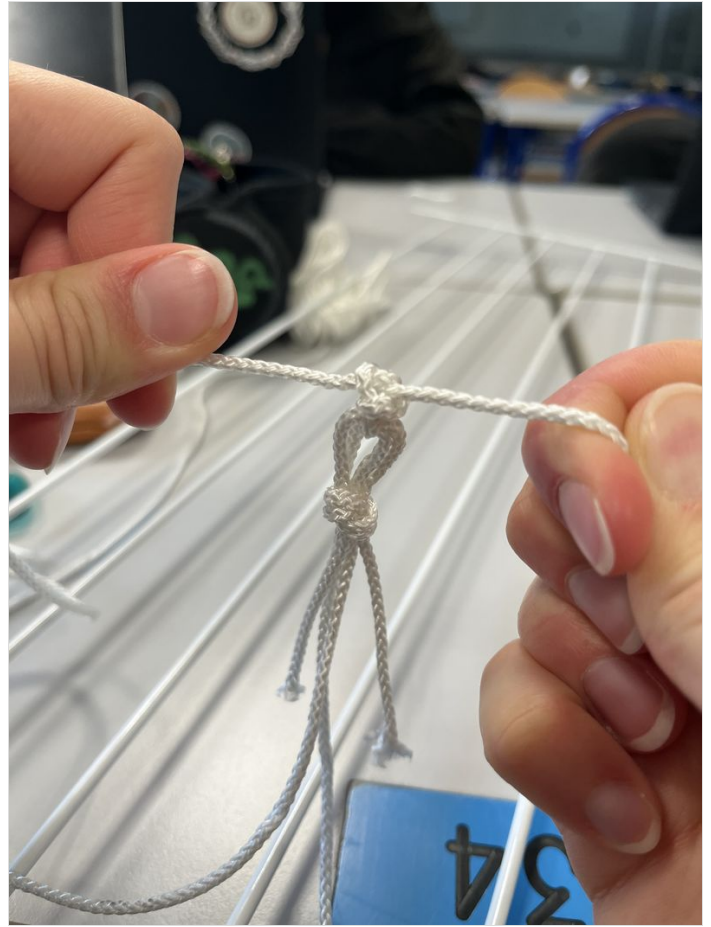




Step 7 - Connecting the attachments - traction lines

For one side of the rack, fix the link of the two "attachments" one of the two traction lines with a simple knot.

Repeat for the other side of the rack.



Step 8 - Attaching the pulleys

Attach 3 pulleys to the ceiling with screws; e.g. the first 2 are spaced 1m apart if the rack measures 1m.

→ *Make sure you choose a position for the clothes rack that is close to the wall that you want to attach the clothes rack stopper system*

The 3rd pulley (corner pulley) must be aligned with the other 2 and must be fixed to the ceiling, very close to the wall (a few cm away).

These pulleys can be replaced with metal hooks, as detailed in the [Materials](#) section.

Step 9 - Attaching the stopper mechanism

Fix the stopper hook onto the wall (with the opening facing downwards), at an easily accessible height that allows you to raise the rack to a suitable height (depending on the height of your ceiling).

Step 10 - Traction line movement

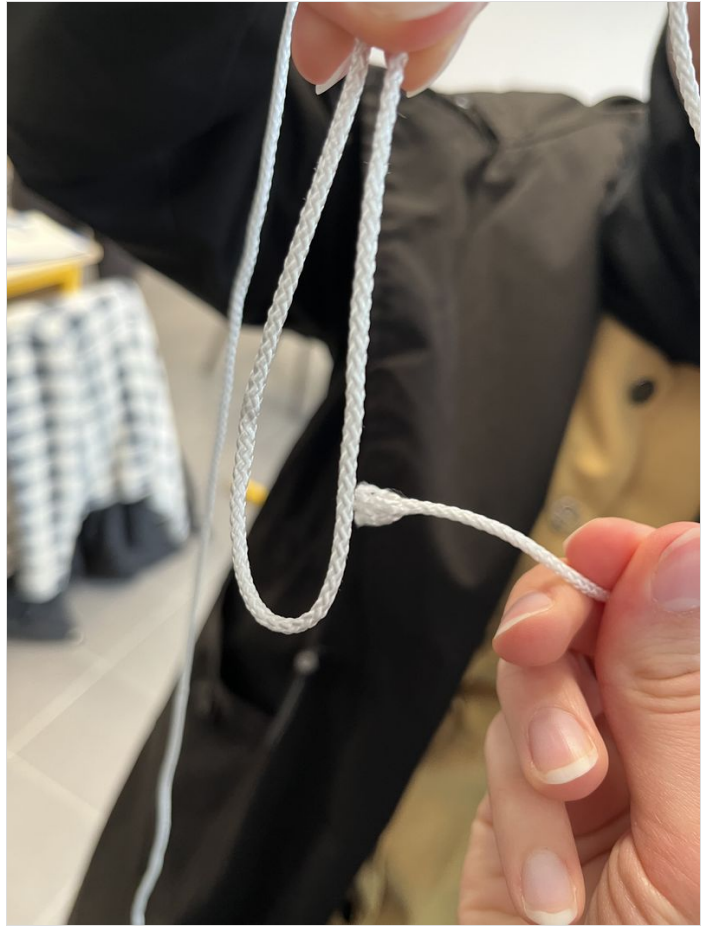
Pass the largest traction line through the pulley furthest from the wall, then through the middle pulley, then through the corner pulley.

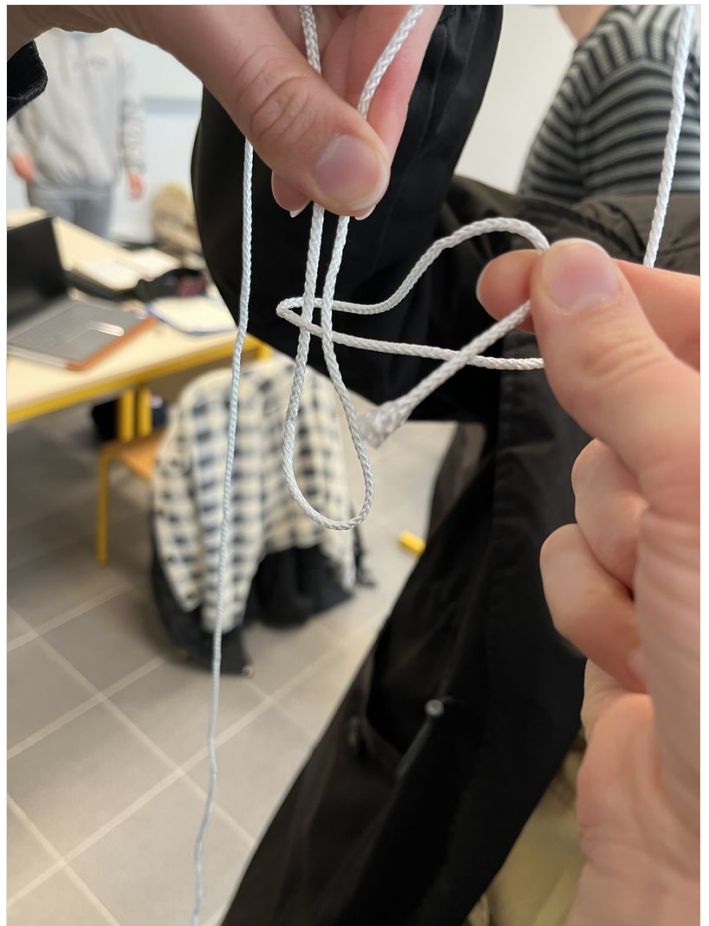
Pass the second traction line through the middle pulley and then into the corner pulley.



Step 11 - Balance + attaching the system to the hook

After balancing the rack: lower it to a height suitable for use (e.g. chest level or lower), balance the strings by pulling/releasing them, then tie the two strings together e.g. with a reef knot.

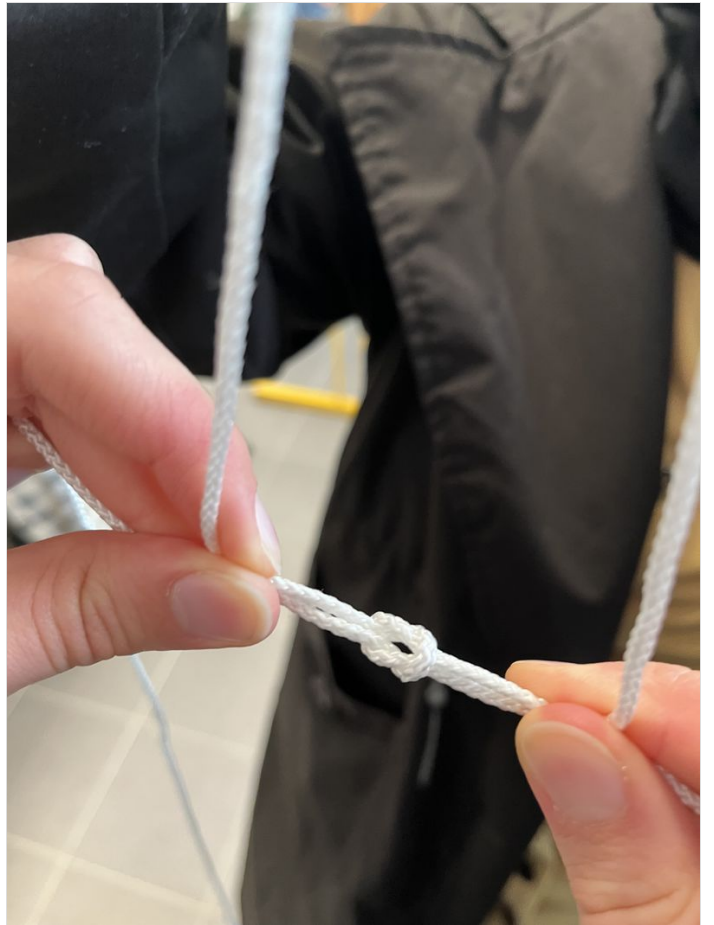


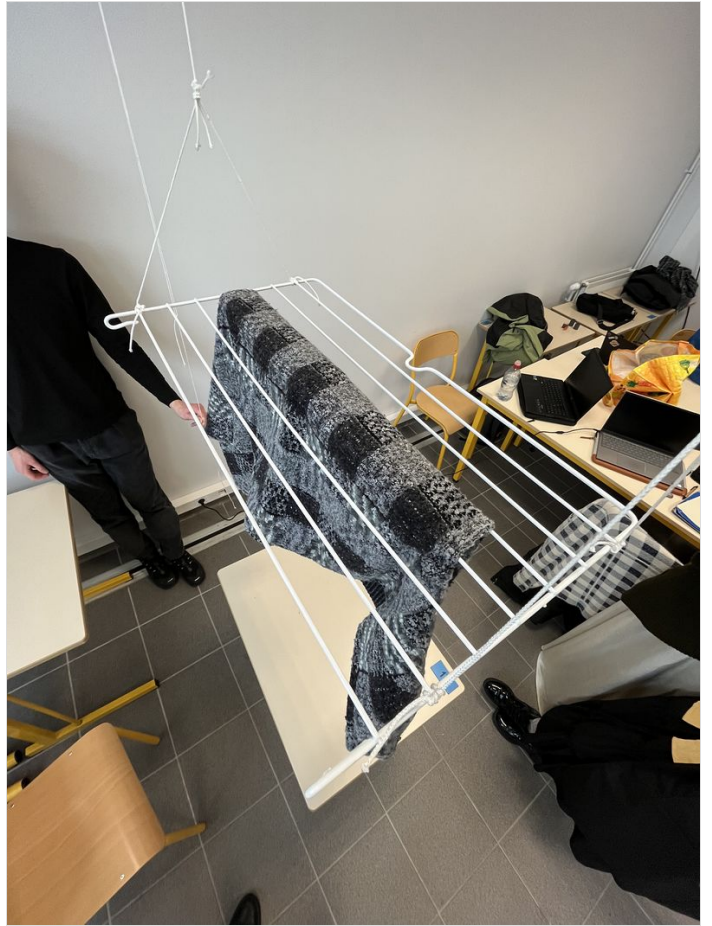




Step 12 - (see photos for step 11)

Lastly, raise the clothes rack to the desired height and tie the end of the strings on the stopper hook with a solid knot.







Notes and references

The system optimises on the space below the ceiling which often otherwise gets forgotten.

It is possible to recreate this overhead clothes rack with different materials, which can alter its accessibility and stability. E.g. simple hooks fixed to the ceiling allow the ropes to slide easily, without needing a more complex / expensive system like a pulley.

Additionally, the drying area can be extended (depending on the available materials) if the fastening hooks are strong enough to hold the weight of the wet laundry.

NB: in order to construct this rack in your own home, you must have permission to drill holes into the walls/ceiling...this poses a significant problem for the target audience of this project.

You also need to be careful where you tie the knots, in order to obtain a well-balanced system (step 4, end of step 6).

If your home is damp, we advise you to pair this laundry drying system with this Dehumidifier.