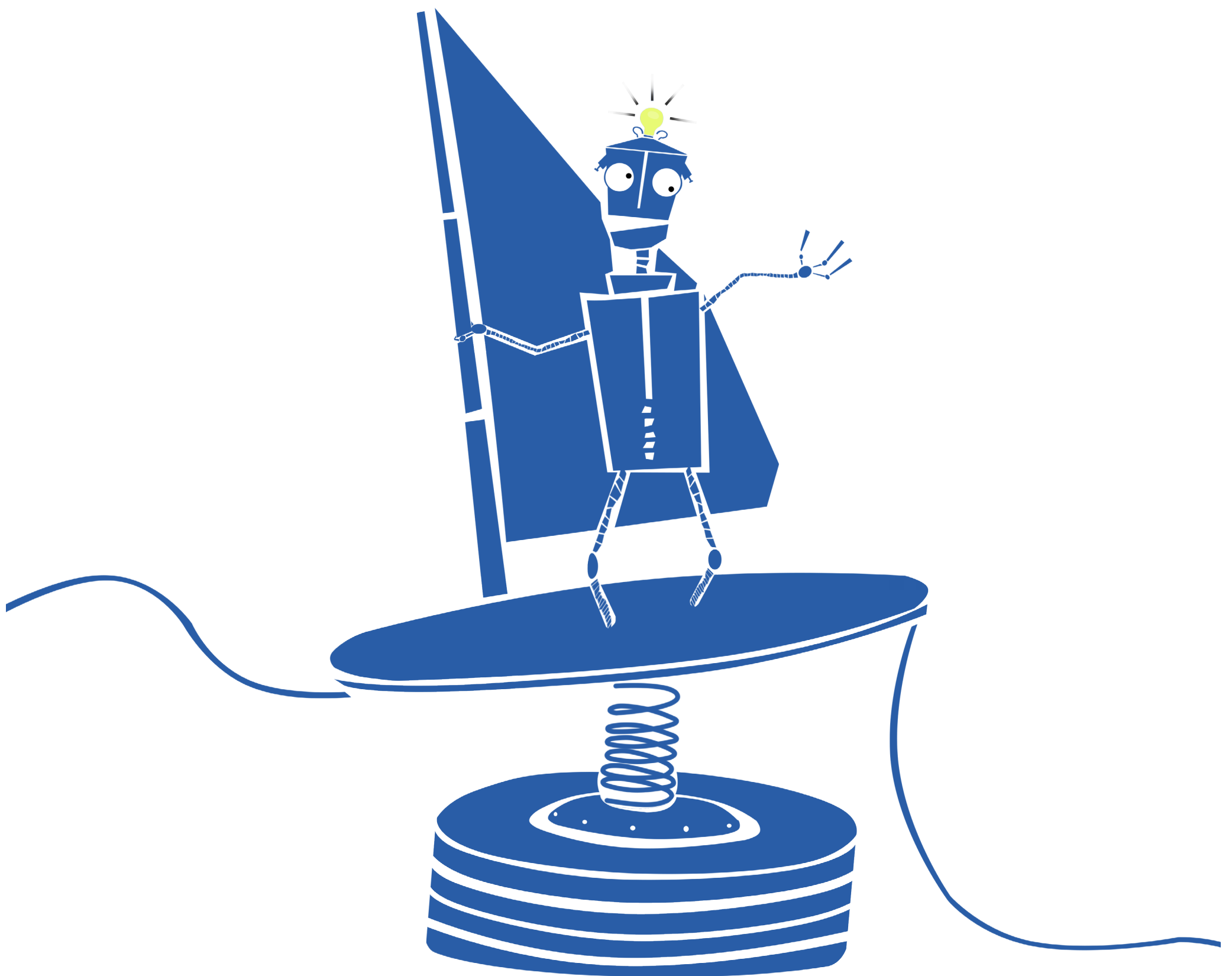
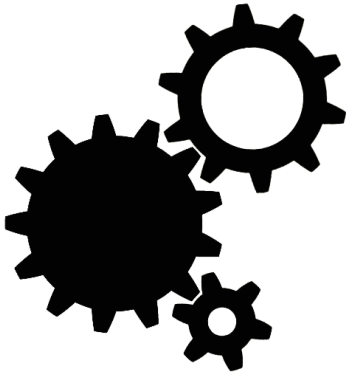


Bram De Langhe ,Arend Rogge, Phebos Xenakis



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Requisites

The construction of this machine requires expertise and machinery knowledge.

Materials

Multiplex

- (20mm, 1300 x 1600)

Ductape

Screws

- Round head bolts (8.5 x 50) and (6.0 x 30)

Washer (M10 x 36)

Isolation tubes

- (\varnothing 70 x 1000)

Stuffing (For example plastic garbage bags)

Round head spikes

foam

Steel plate

- (500 x 500)

Steel cilinder

- (\varnothing 55 x 300, thickness 2mm)

Bolts

- M 8.5 and M 6.0

PVC tubes

- (\varnothing 80 x 50 , thickness 2.5)

Steel profiles

- (1400, 20 x 20)

Cloth

- (2500 x 1500)

Rope

- (6000)

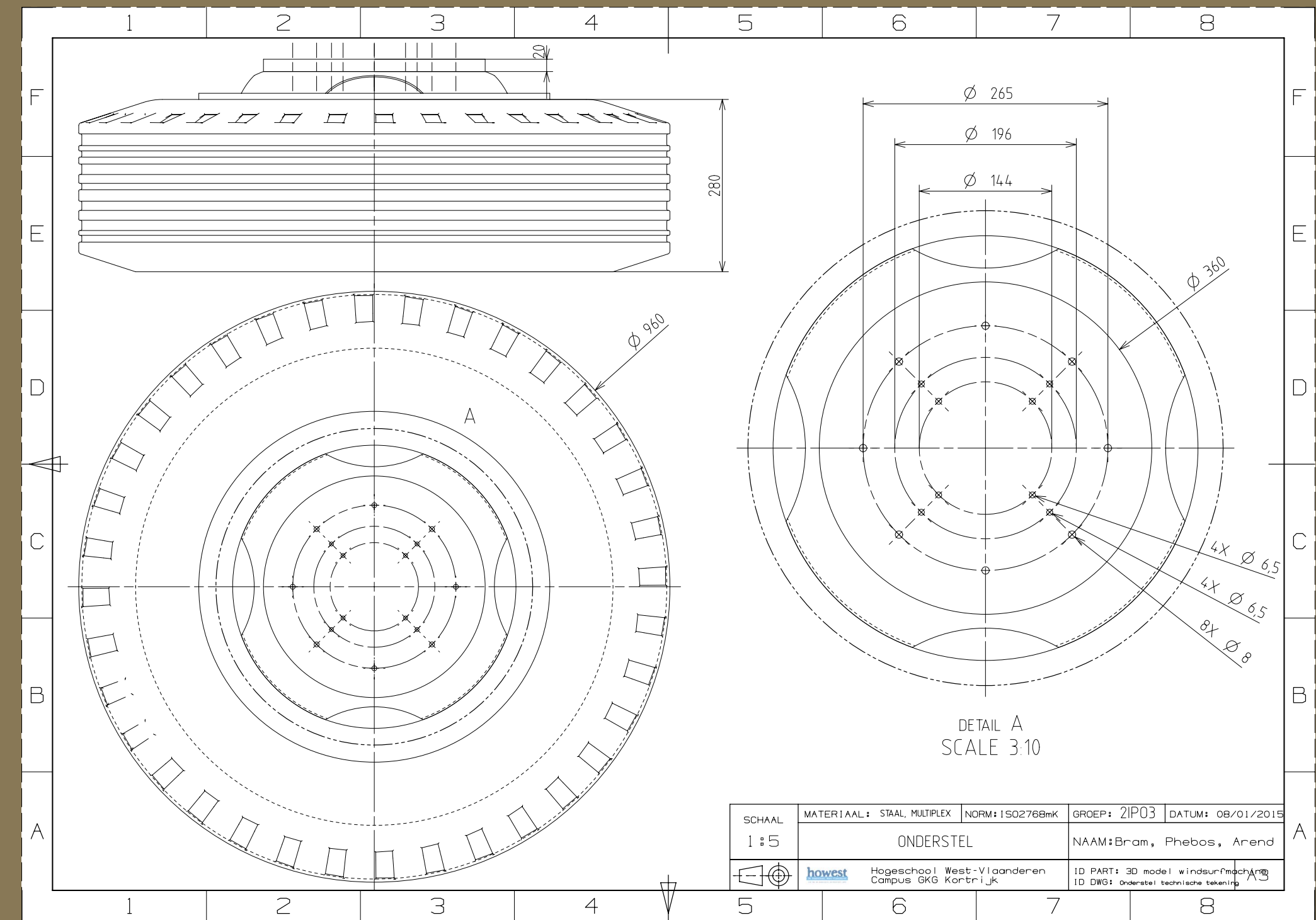
Truck tire attachment (multiplex)

Use a belt saw to cut the right diameter out of the multiplex plate.

Sand the edges to make a nice round and smooth circle.

Use a drill to make the holes into the plate.

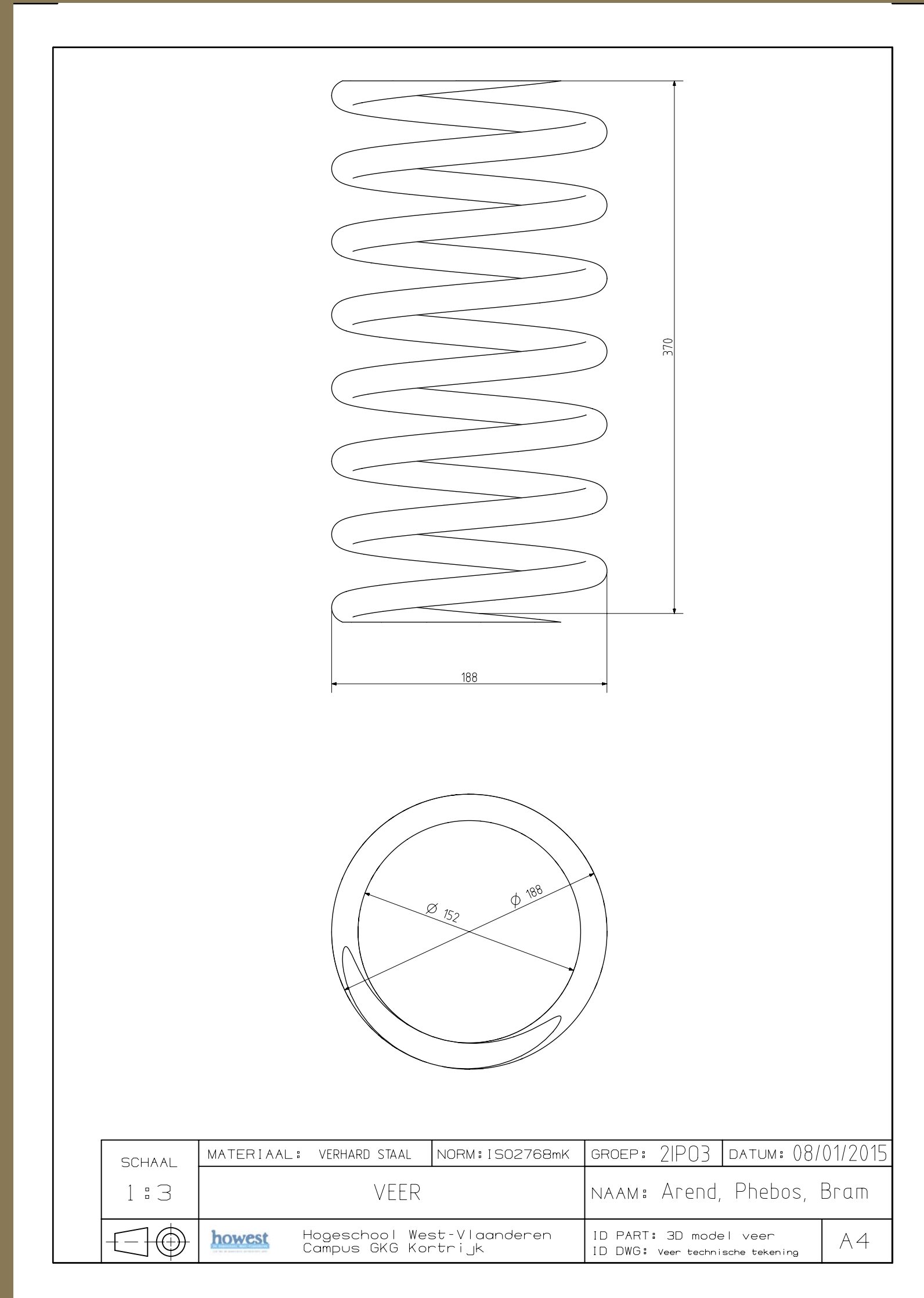
Use the technical drawing below to performe the steps properly.



Spring (hardened steel)

Following spring is custom made.

We recommend to use the same dimensions.

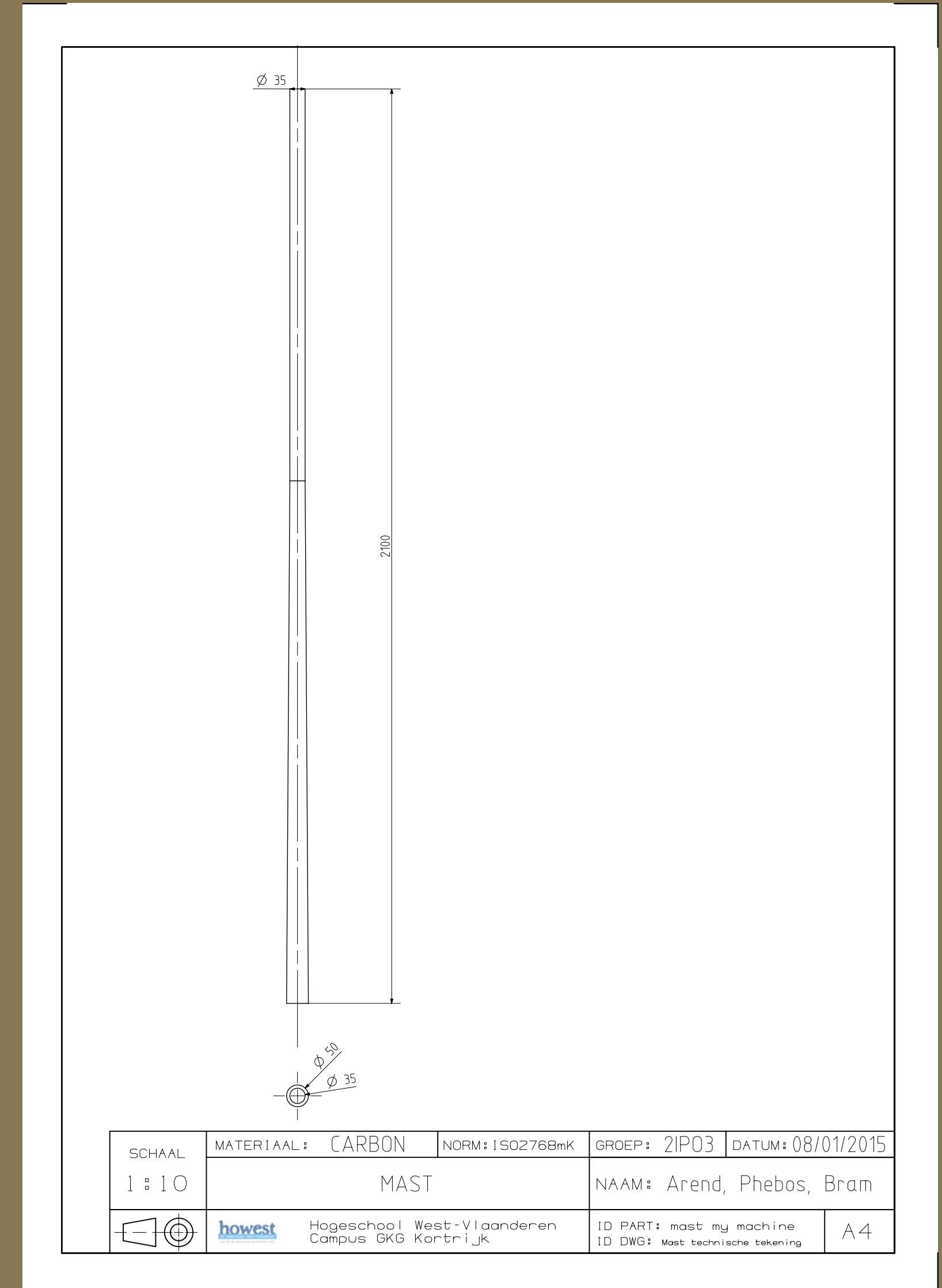


Mast (glasfiber / carbon)

We used an existing mast from a surf board.

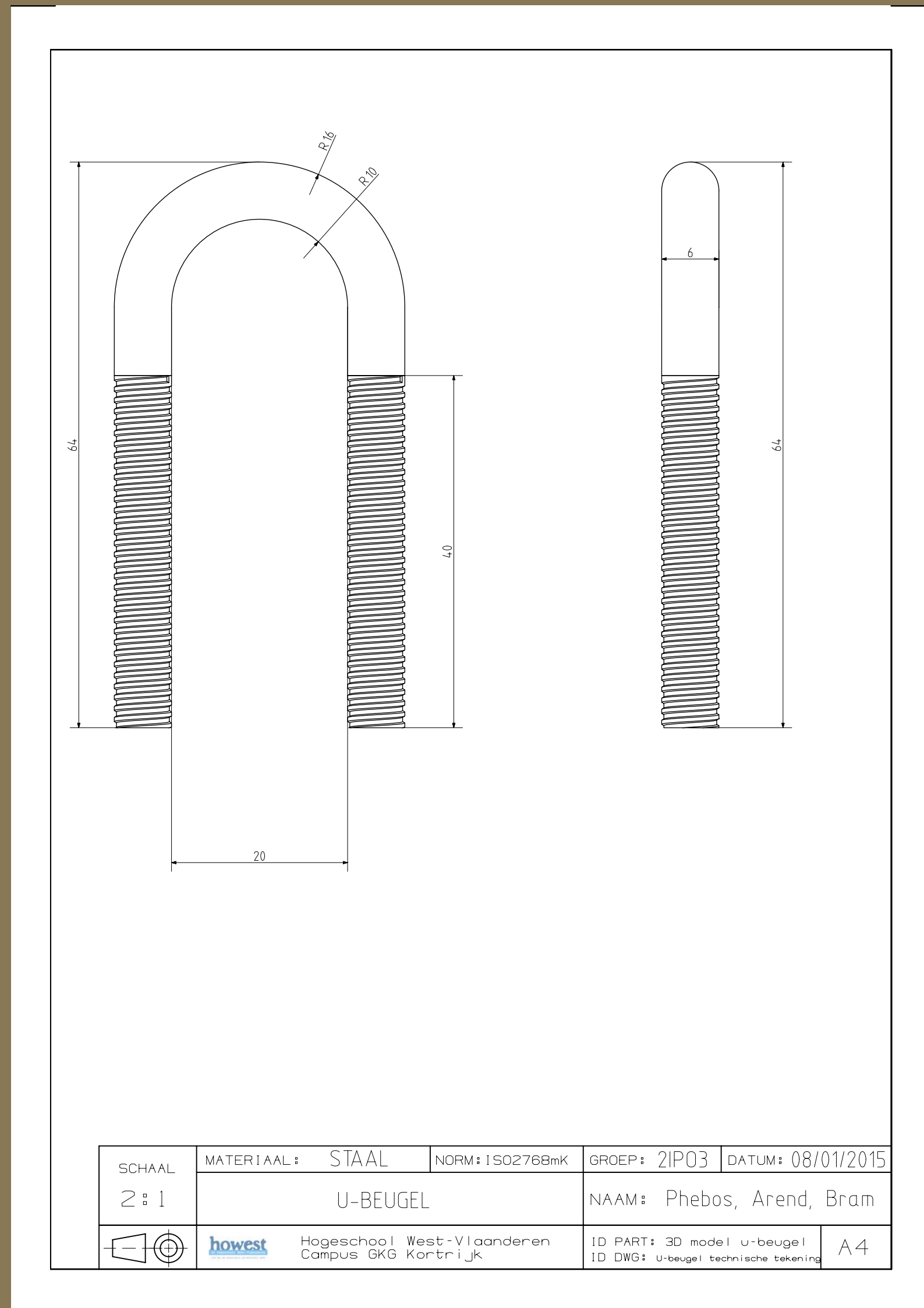
Use the technical drawing below to make the mast.

You can choose which materials to use.



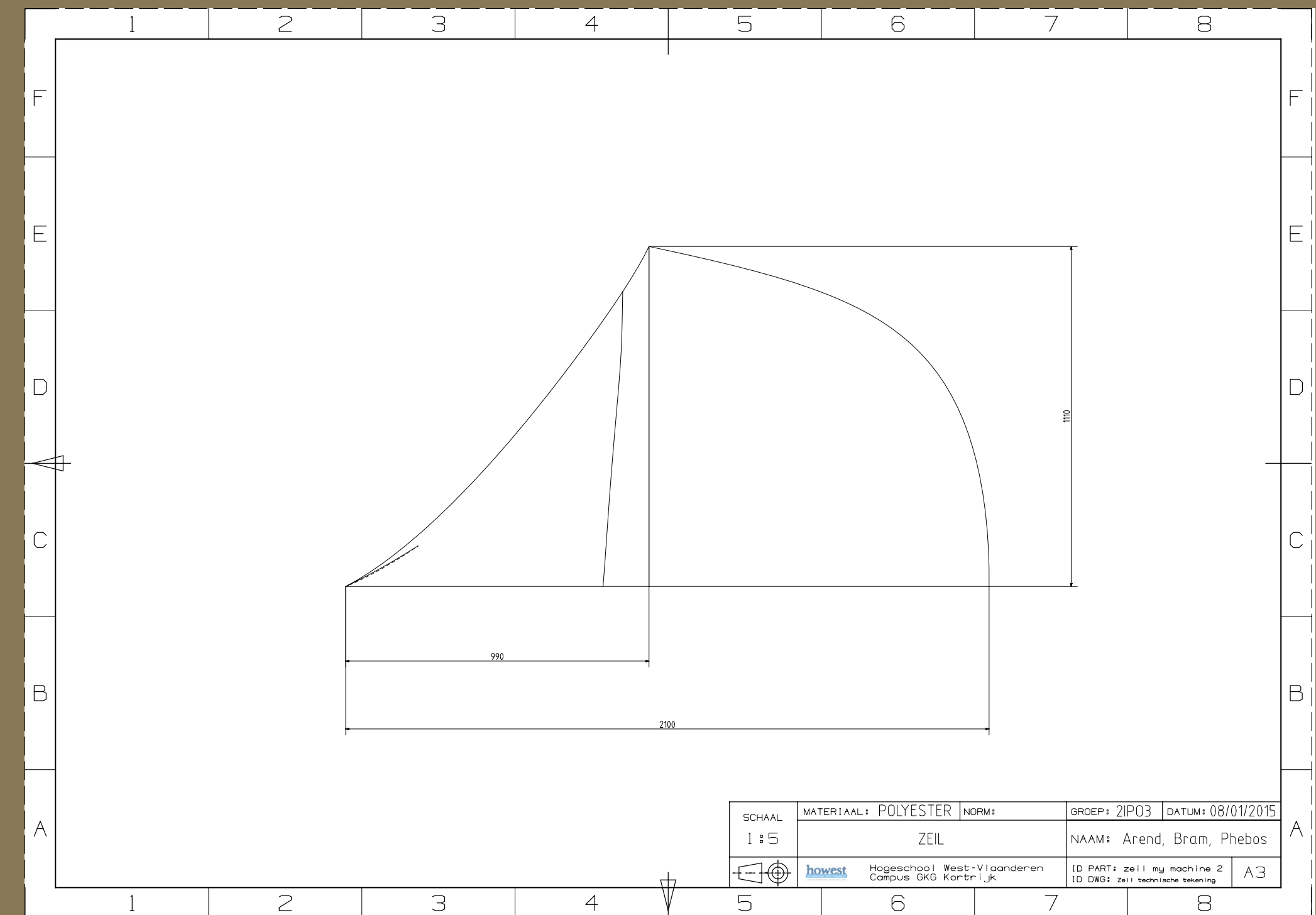
U-brackets (steel)

These brackets are standard parts and can be bought at the local hardware store. If not, use the technical drawing below to make them.



Sail (cloth)

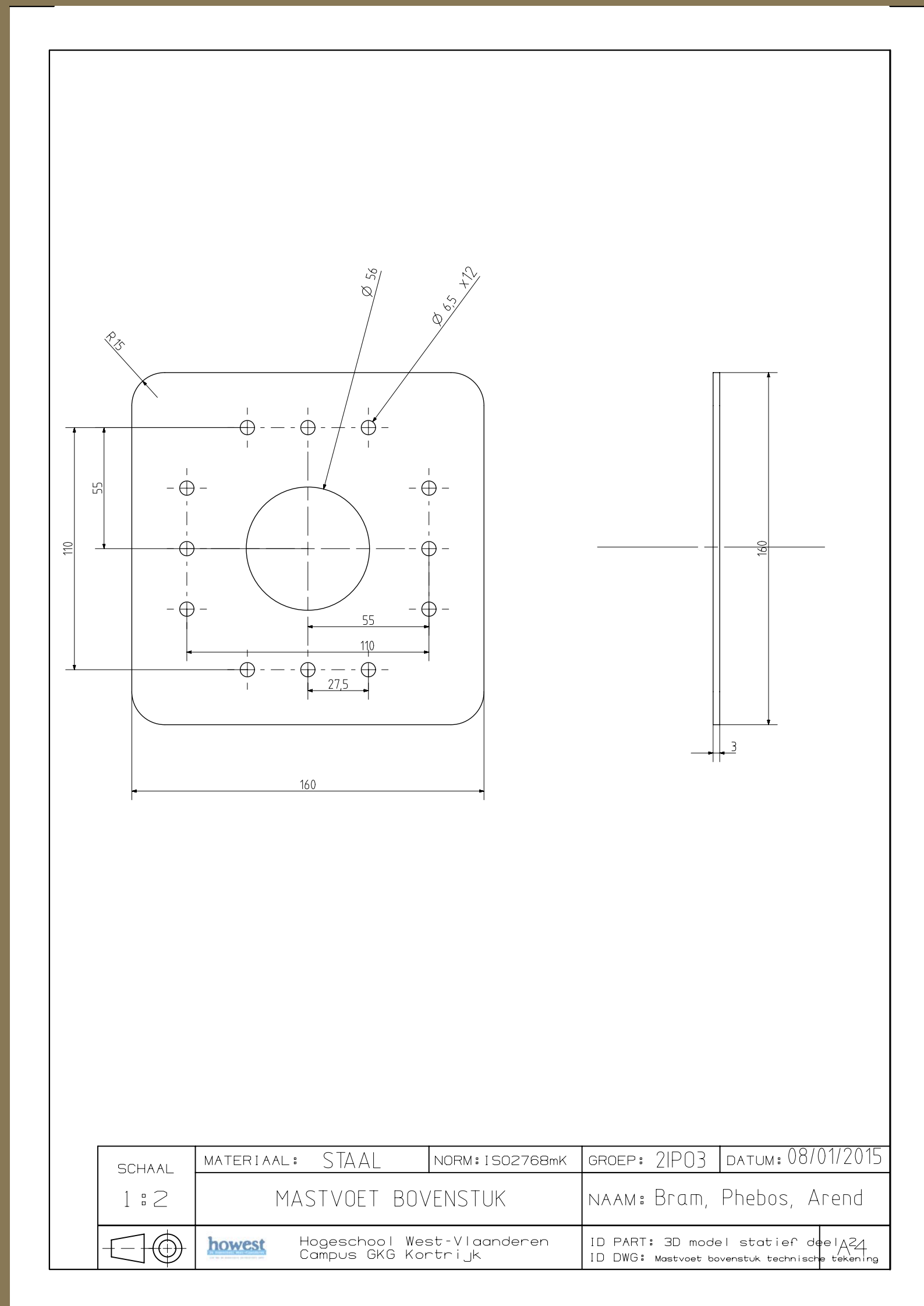
Use a scissor to cut the shape as shown on the technical drawing below. You can also choose your own material and design.



Mast foot upper piece (steel)

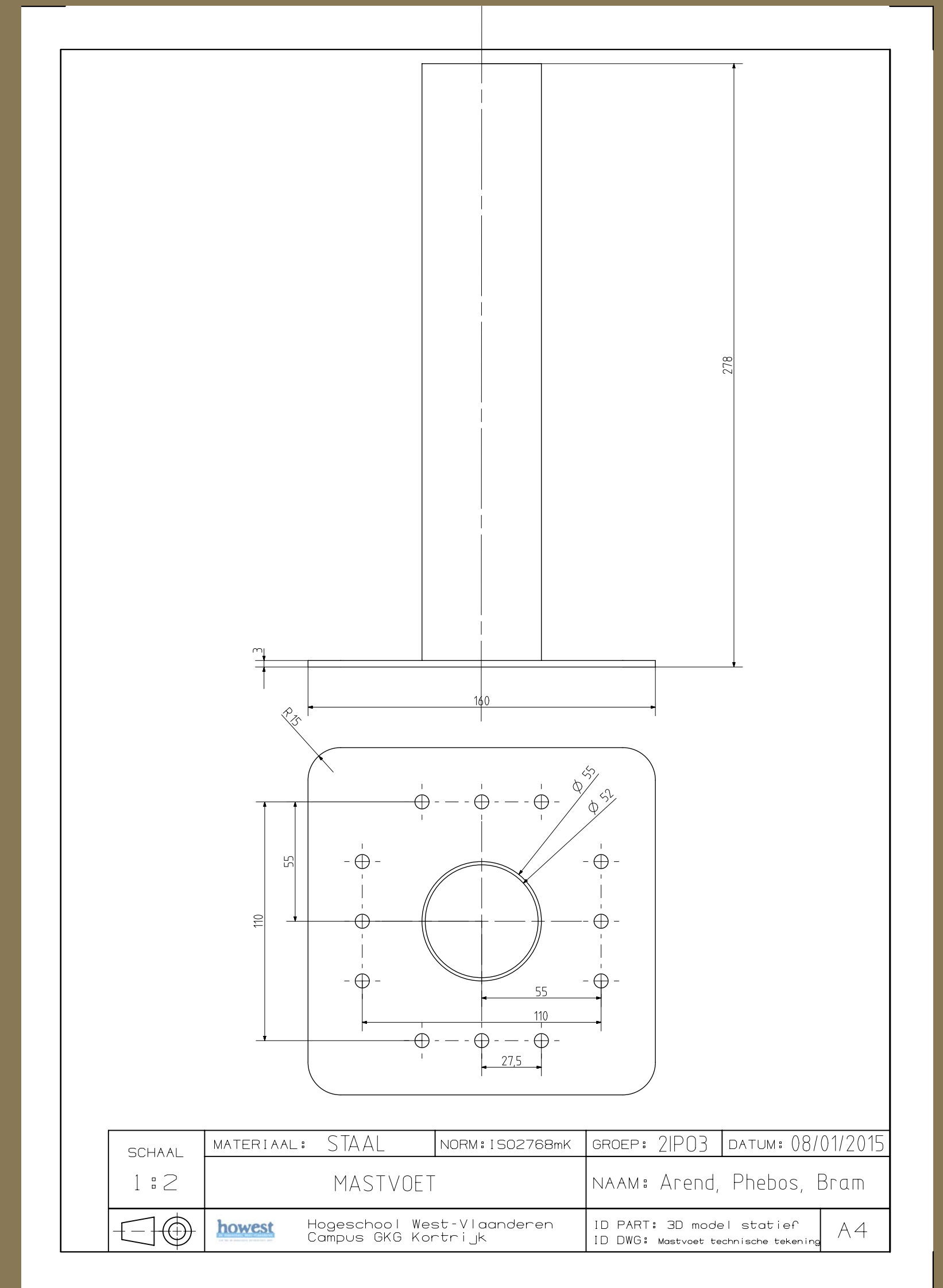
Use an abrasive disc to cut out the shape as shown on the technical drawing below. Use a pillar drill to cut the holes.

Repeat the process to make a second identical piece.



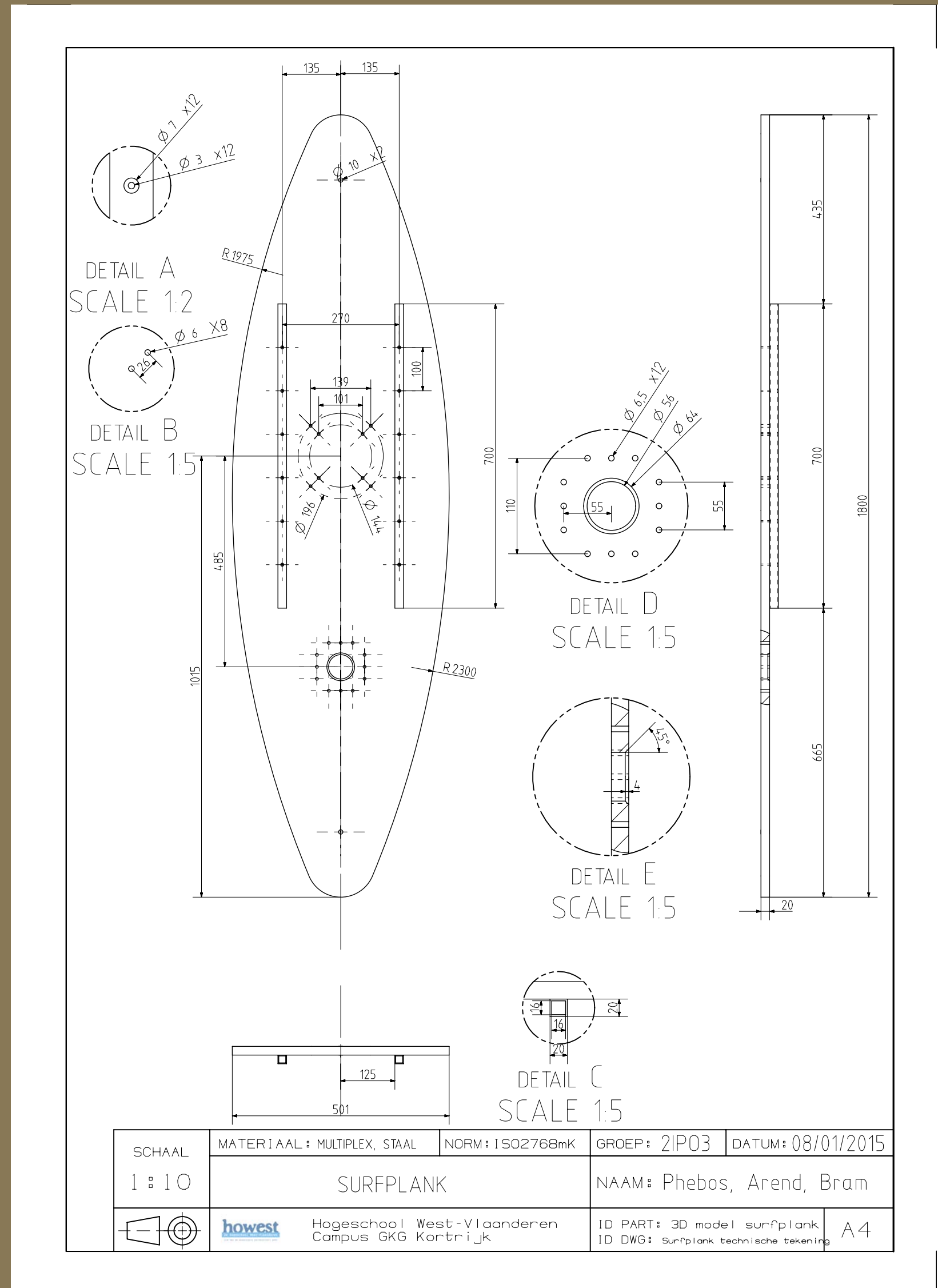
Mast foot (steel)

Use the steel cylinder. Adjust the height of the cylinder to 270mm. Weld the cylinder onto the plate.



Surfboard (multiplex)

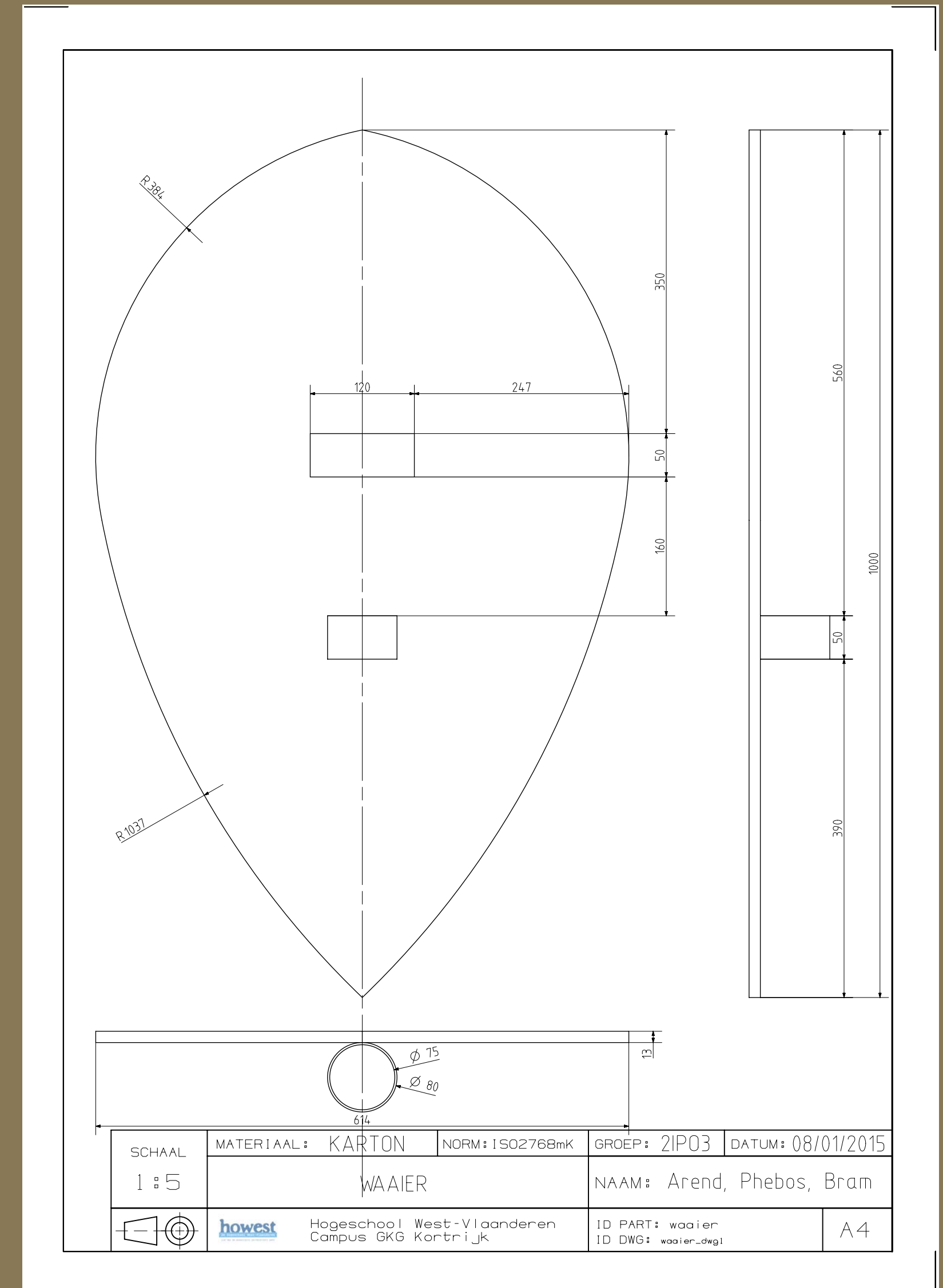
Use the multiplex plate. Use a jigsaw to cut out the surfboard.
 Use a sander to smoothen everything out.
 Drill the holes as shown on the technical drawing.
 Attach the steel bars on to the board with fitting screws.
 Use the sander again to make a chamfer on the hole for the mastfoot
 as shown on the drawing.



Windmakers (cardboard)

Use a knife or cutter to cut the desired shape out of the cardboard.
 Cut out a square piece as shown on the drawing, this hole will be used
 as handle for the windmaker.

Cut out the right piece of pvc with a jigsaw, beltsaw or handsaw.
 Attach this with ducttape on the right place of the cardboard piece.



How to build the windsurf machine



Cut the shape of the surfboard out of multiplex by using a jigsaw. Get rid of bumps by sanding the edges.



Use a drill to pre-drill a hole for the next step. Use the right drill. (depends on the drill bit)



Drill the hole for the mast. Use a drill bit. Use some tape to avoid splinters.



Find some stuffing. For example plastic waste. (we used garbage from Euro shop)



Cut the surfboards shape out of foam. Make sure you have extra space left for the attachment on the board. (oversize the dimensions)



Attach one side of the foam onto the board. Use spikes with a rounded head.



Use the open side to fill with stuffing material.



Use isolation tubes for safety reasons.



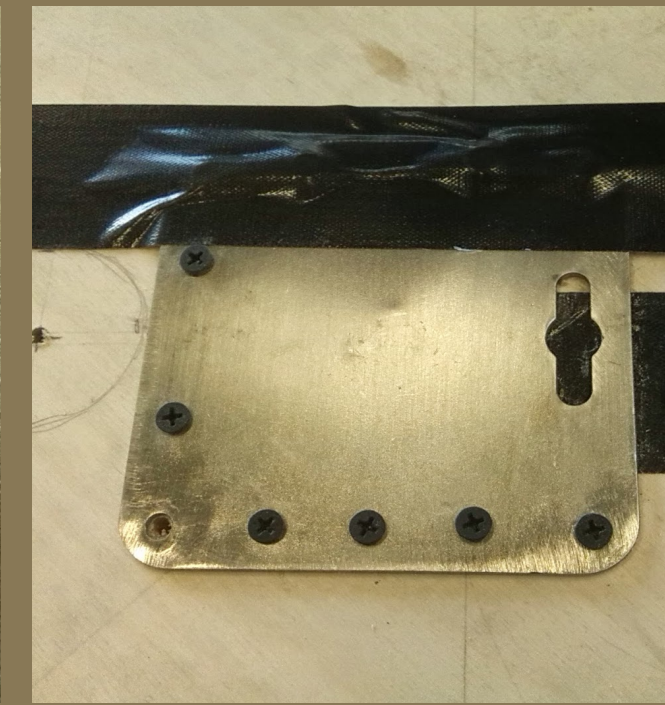
Apply the isolation on to the board. Cut the isolation on the right dimensions.



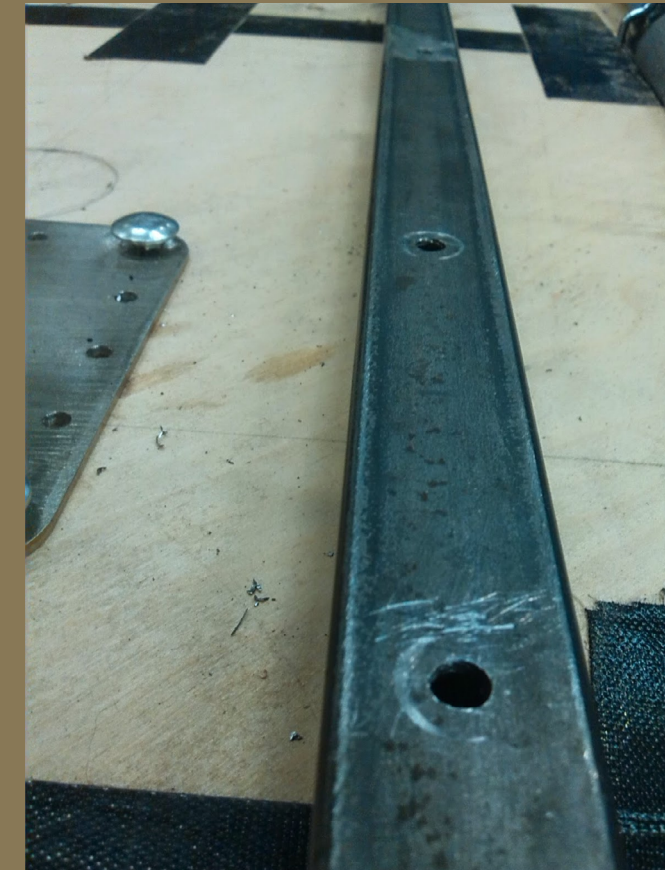
Drill some holes in the (mastfeet). Use the holes to pre-drill new smaller ones.



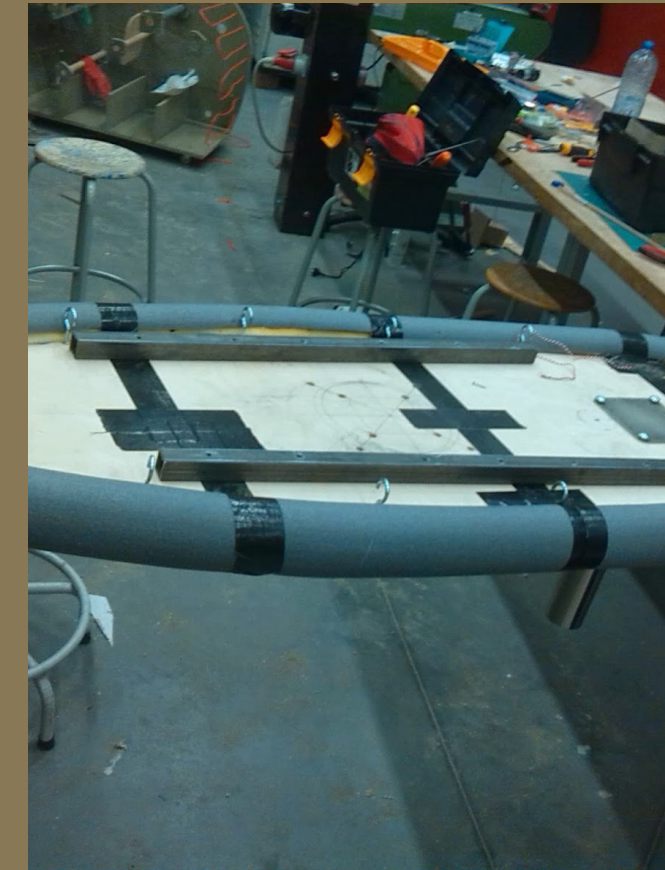
Remove the top of the screw for safety reasons.



Use the screws to attach the feet onto the board.



Drill some holes into the steel bars.



Place the bars on the board. Make shure they are in the wright position.



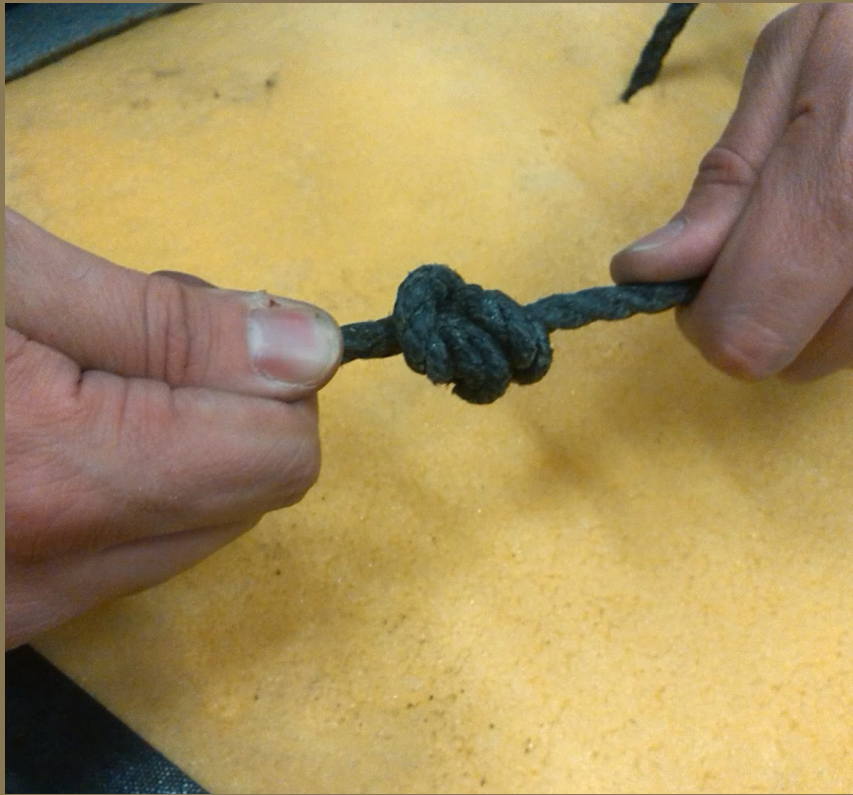
Screw the bars onto the board.



Use the 4 U-brackets to attach the spring onto the board.



Repeat the handling for the attachment on the base plate.



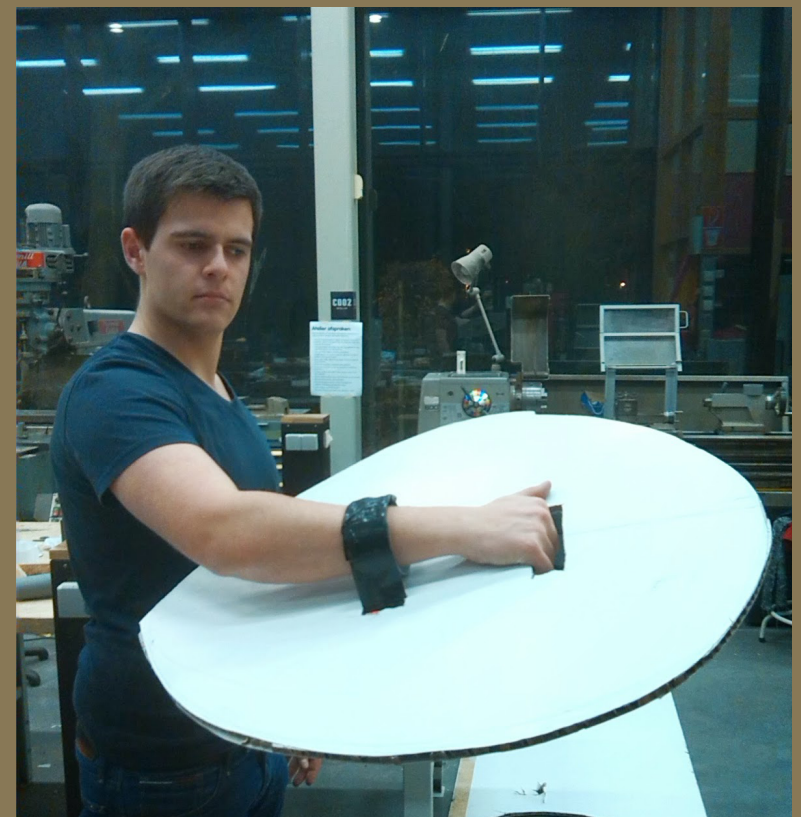
Use the cord.
Take your rope and cut it in the middle, pull each one through the holes at the upper and lower ends of the surfboard.
Make a strong, big knot at the beginning of the cord so the rope won't come through the board



Use a thicker and shorter rope to make handles.
Put tension wraps around both cords and tighten firmly.



Take the cardboard shapes.
Use ductape to attatch a short tube of pvc onto the cardboard.



Imagine that you are at sea.
Test the surf machine after a good safety inspection!