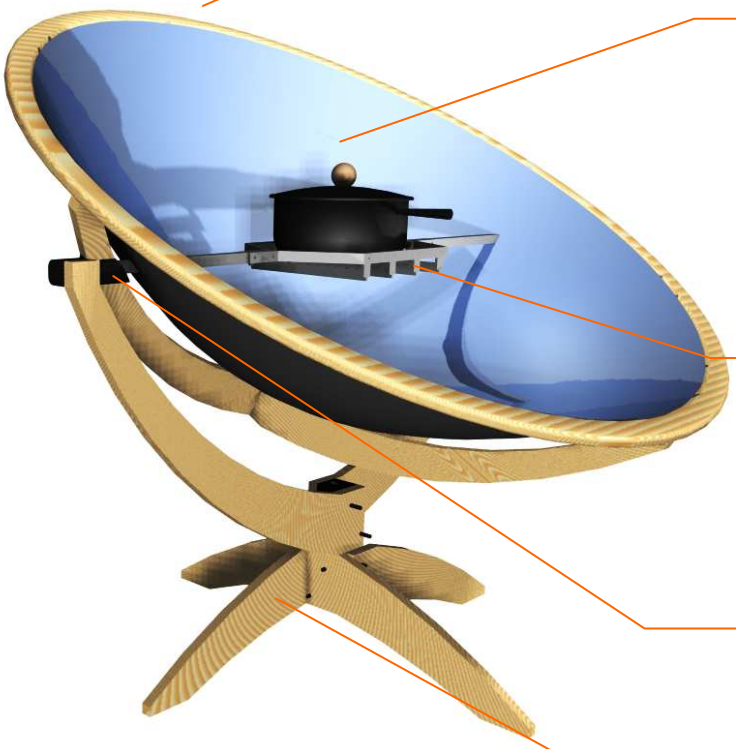
Roadmap for the Parabolic Solar Cooker
(Diameter 140 & 110 cm)

The making of the solar cooker requires different operations that can be carried out independently.
We are showing these operations according to:
1 - the time they require in ¼ day, (1 KAR, ou 2 KAR)
2 - the level of difficulty《low, medium or high》.
The table below provides a schedule for each pair that optimizes the time and the energy consumption.



1 Parabola (dish) support ring
- 1 KAR

2 Parabola made of aluminium blades & its sight to assist aim
- 1 KAR

3 The steel pot receptacle
- 2 KAR

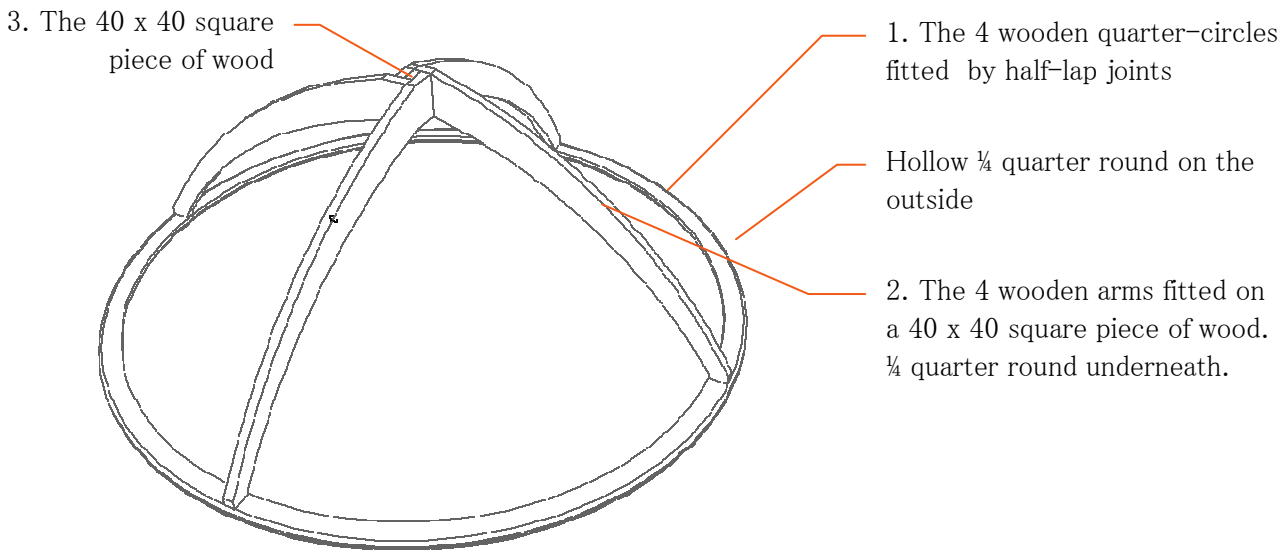
4 Support links
- 1 KAR

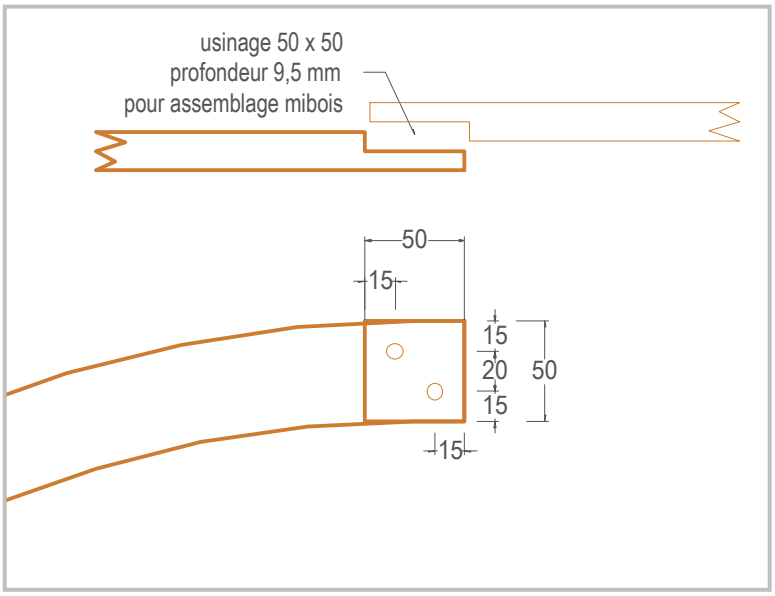
5 The base (stand)
- 1 KAR

《 Teams 》	Diameter	Thursday am		Jeudi Aprem		Friday am		Friday pm	
Pair number1		Presentation							Finishing
									Assembling
									Evaluation

Stage de Fabrication de cuiseur solaire.
Pôle Eco Design / Réseaux des Jardins Solidaires Méditerranéens.
18 / 19 avril 2013, Croq'Jardin, la Roque d'Anthéron.

Road map for the dish support

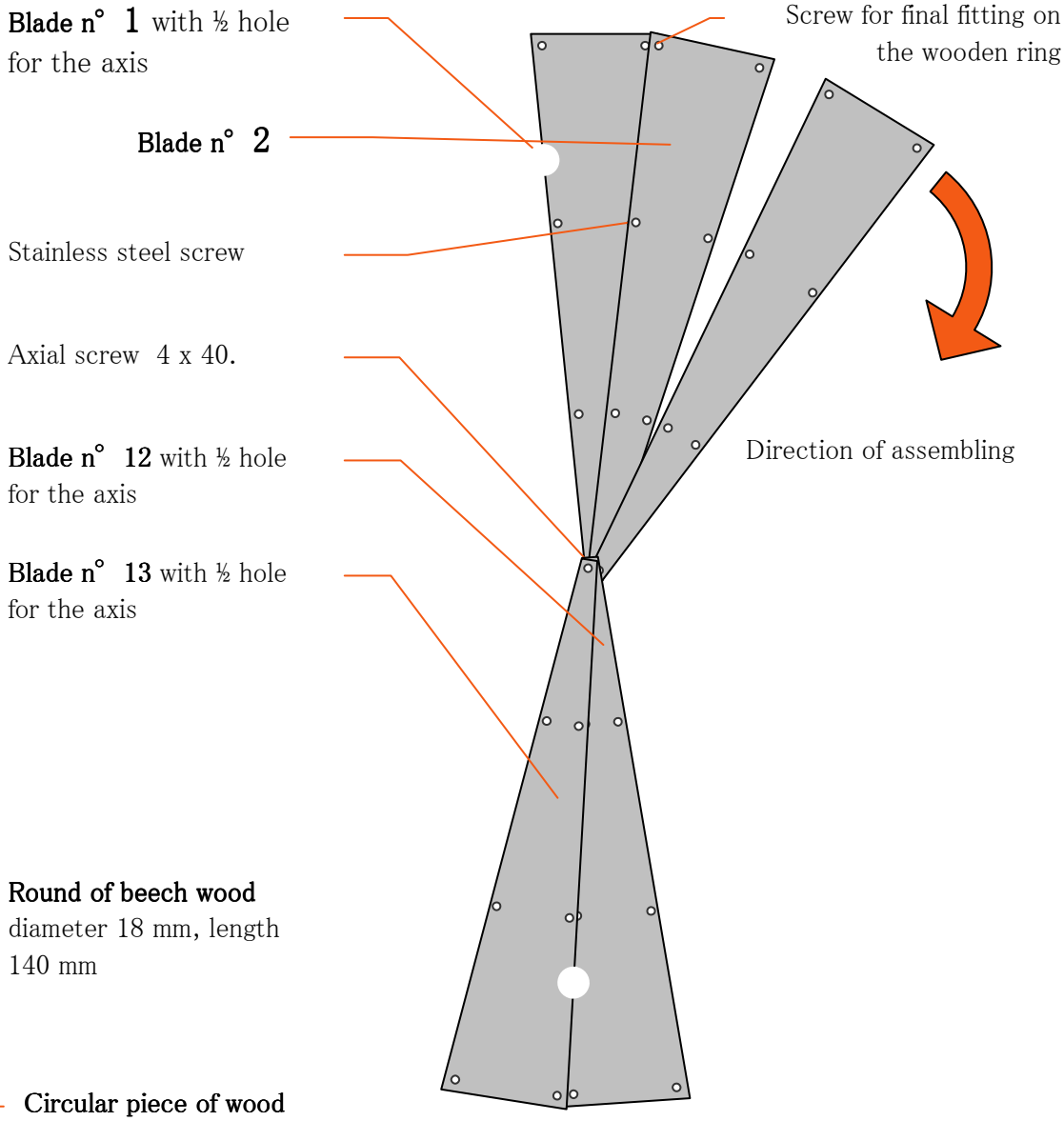




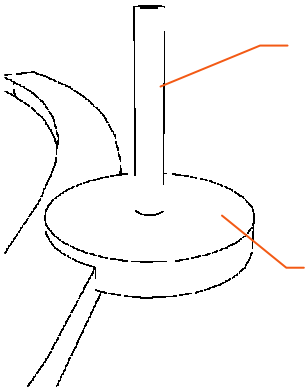
1 - cut and deburr the pieces of wood matching your cooker (4 quarter-circles and 4 arms)
2 - mark the half-lap cuts (50 x 50 mm) on each side of the quarter-circles
3 - cut the 8 half-lap joints with a comb for dovetail jig or with a wood router.
4- hollow the ¼ rounds on the outsides of the quarter-circles and underneath the arms.
5- carefully prepare the gluing of the circle and glue strongly with 2 screws and clamps.
6 - prepare (gentle screwing) the 4 arms around the 40 x 40 square piece of wood.
7- position, glue and screw the arms on the circle
8 - glue and screw the arms on the 40 x 40 square piece of wood.
9 - clean the excess of glue with a sponge or a wet cloth.

ECO DESIGN CAMP 2

Road map for the parabola made of aluminium blades

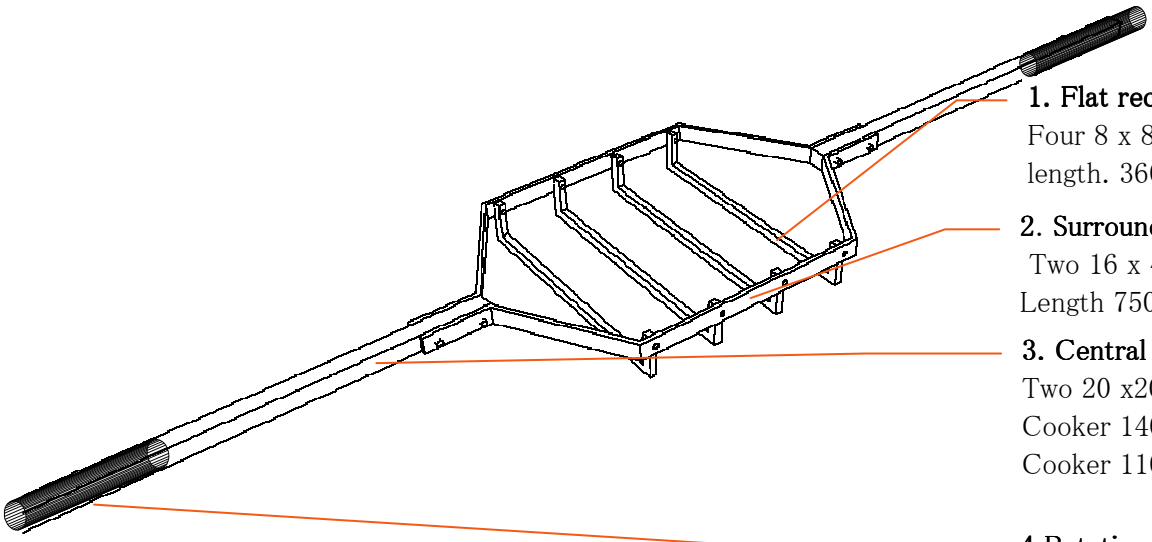


Sight to assist aim



1 – Mark a disk (diameter 140) and cut it with a band saw on a straight pan. Finish with buff wheel
2- Position the disk overlapping 40 mm on the circle of the parabola and mark on the rear the shape of the hollow
3- Drill the centre of the disk at 4 mm and screw it on a worktop.
4- Hollow the overlapping part for gluing.
5- Drill the centre (diameter 14 mm) then thread it (diameter 18 mm).
6 – Glue and screw the disk on the quarter-circle of the parabola
7- Prepare the sight in a wooden round (diameter 18, length 140 mm, of which 20 mm thread). Screw it and glue it on the disk

Road map for the steel pot receptacle



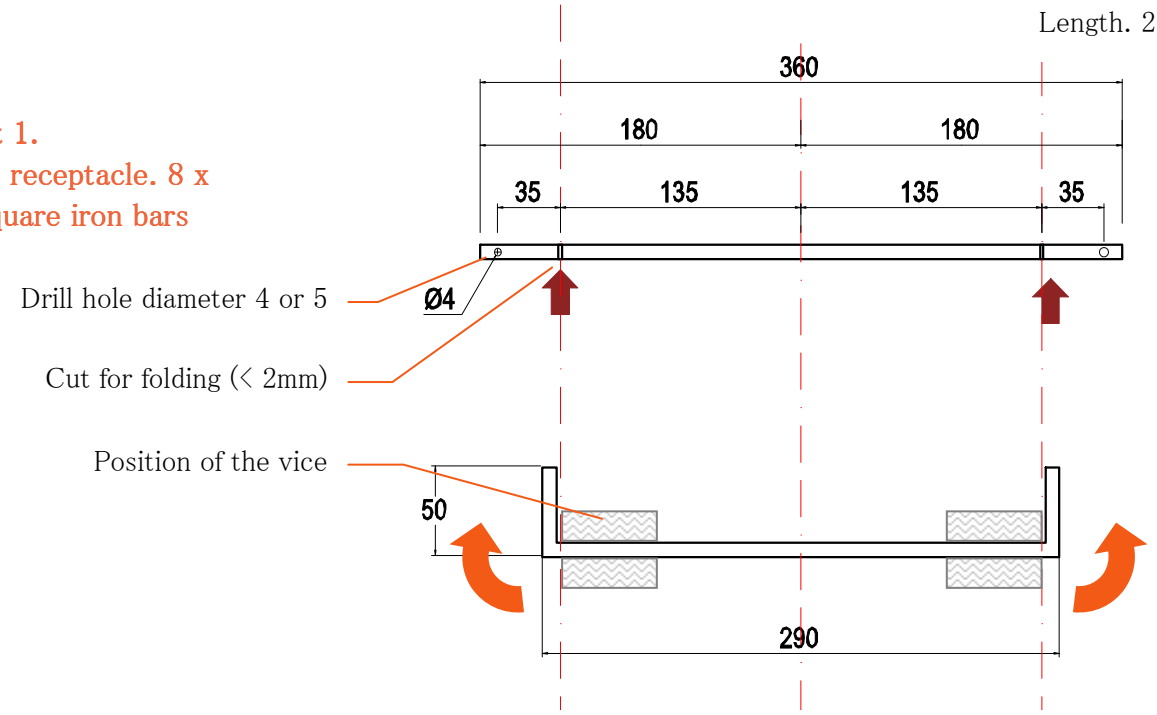
1. Flat receptacle/ Nb. 4
Four 8 x 8 square iron bars,
length. 360

2. Surround / Nb. 2
Two 16 x 4 flat iron bars
Length 750

3. Central Axis / Nb. 2
Two 20 x20 square tube.
Cooker 140 Length 340
Cooker 110 Length 200

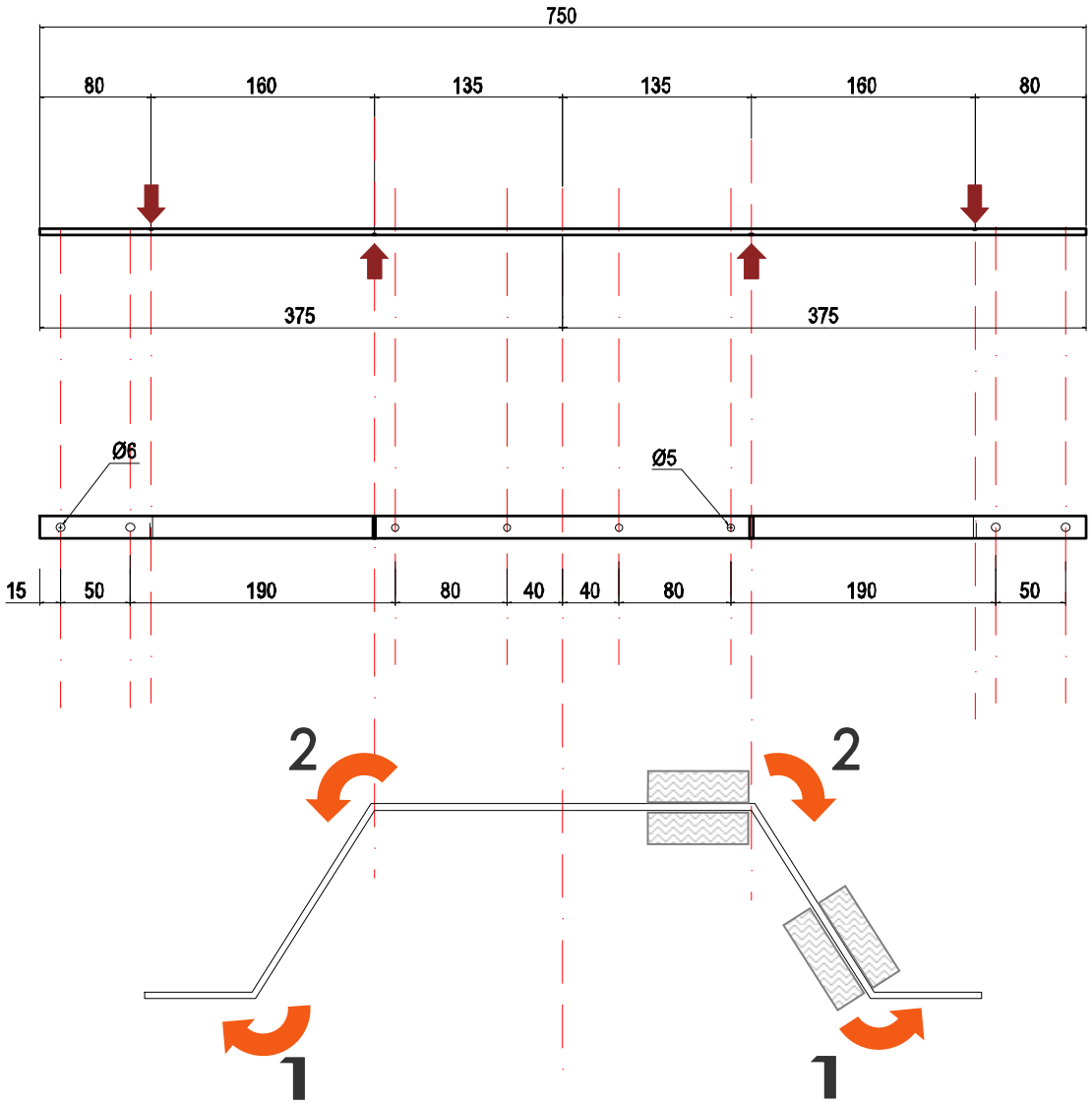
4.Rotating linking bars.
/ Nb. 2
Two threaded stems diameter 18.
Length. 250

Part 1.
Flat receptacle. 8 x 8 square iron bars



1 - Mark and cut the 4 pieces in the square iron bars with a hacksaw or a grinder.
2- Punch the position of the holes to drill and mark the cuts for folding (<2 mm).
3- Drill the holes (diameter 5mm) with a column drill press.
4- Stick the central part in the vice and bend the sides with a sledgehammer at right-angles.
5- Prepare 8 bolts (screws and nuts) diameter 4 mm

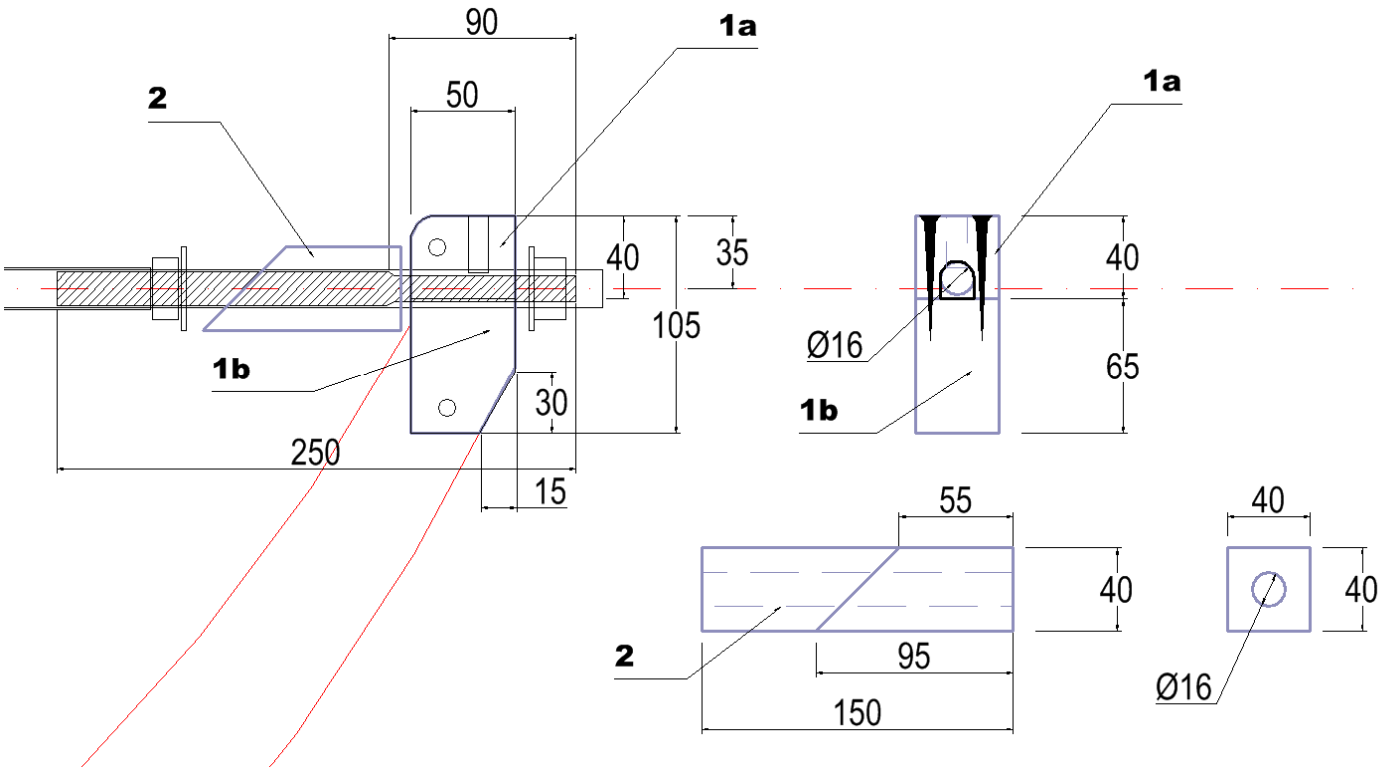
Part 2.
Surround.
16 x 4 flat iron bars.



1 - Mark and cut the 2 pieces in the flat iron bar with a hacksaw or a grinder.
2- On the 2 pieces punch the position of the holes to drill and mark the cuts for folding (<2 mm).
3- Drill the 4 holes (diameter 5mm) and the 4 other holes (diameter 6mm) with a column drill press.
4- 1 - Stick the central part in the vice and bend the shorter parts (at the ends) with a sledgehammer at the gauged angles
4- 2 - Stick the central part in the vice and bend the longer parts (close to the middle) with a sledgehammer at the gauged angles
5- Prepare 4 bolts (screws + wing nuts) diameter 6 mm

Part 4. Rotating linking bars
Two threaded stems diameter 16.

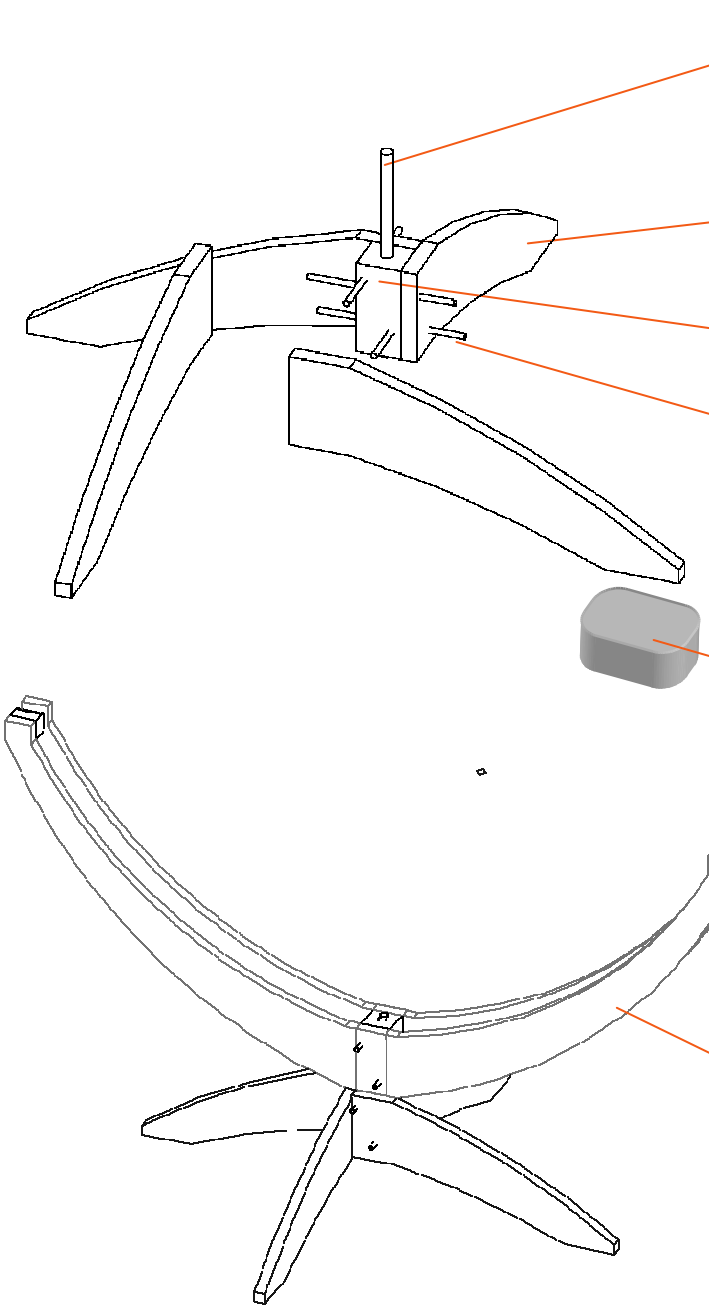
Road map for the support links



To be validated on prototype before realisation.

ECO DESIGN CAMP 5

Road map for the base (stand)



3. Axis of rotation.
Threaded stems diameter 16 mm
Length 310.

1. Four Feet Nb. 4
Roug-cut piece of 3-layer wood. Thickness 22 mm .

2. Central piece. Nb 1
60 x 60 square piece of wood
Length 130mm

3. Fitting.
Dismountable: 4 bolts TRCC 8 x 120
Permanent: glued and screwed - 8 wood screws 60 x 5.

Pads or rollers depending on use and terrain
Anti-Slip panel or recycled plastic or rollers on wooden support

Support links 50 x 40 x 105
The long arms are screwed on each side of the plastic part

Long arm.
Screwed and glued on the second 60x60 square piece of wood Length 130

1 – cut and deburr the pieces of wood matching your cooker (4 feet and 2 long arms)
2- cut two 60x60mm pieces of wood (length 130mm). Drill a hole (diameter 16mm) in the centre
3- hollow the ¼ rounds on the upper sides of the feet and on the the sides of the long arms
4 – prepare (gentle screwing) the 4 feet around the 60 x 60 square piece of wood.
5- position, glue and screw
6- position, glue and screw the 2 long arms around the 60 x 60 square piece of wood.
8 – clean the excess of glue with a sponge or a wet cloth.