HOW TO MAKE

A GIANT CLAM OCEAN CULTURE CAGE

Project for Promotion of the Grace of the Sea in Coastal Villages

Phase 2 (Second Edition, Revised in April 2014)

TWO CAGE DESIGNS

Type B6 (Recommended)

Accommodates 6 blocks.

Stronger because of no seams.

Easy to make.

Easy to handle.

BUT Unstable under rough sea.

Type B12

Accommodates 12 blocks.

Weaker due to the seams.

Not so easy to make.

Not so easy to handle.

BUT Stable under rough sea.

No big differences in production costs between 2 sets of B6 and 1 set of B12.

MATERIALS

Plastic mesh screen

Locally available plastic mesh, 13mm “Oyster Mesh” is mainly used.

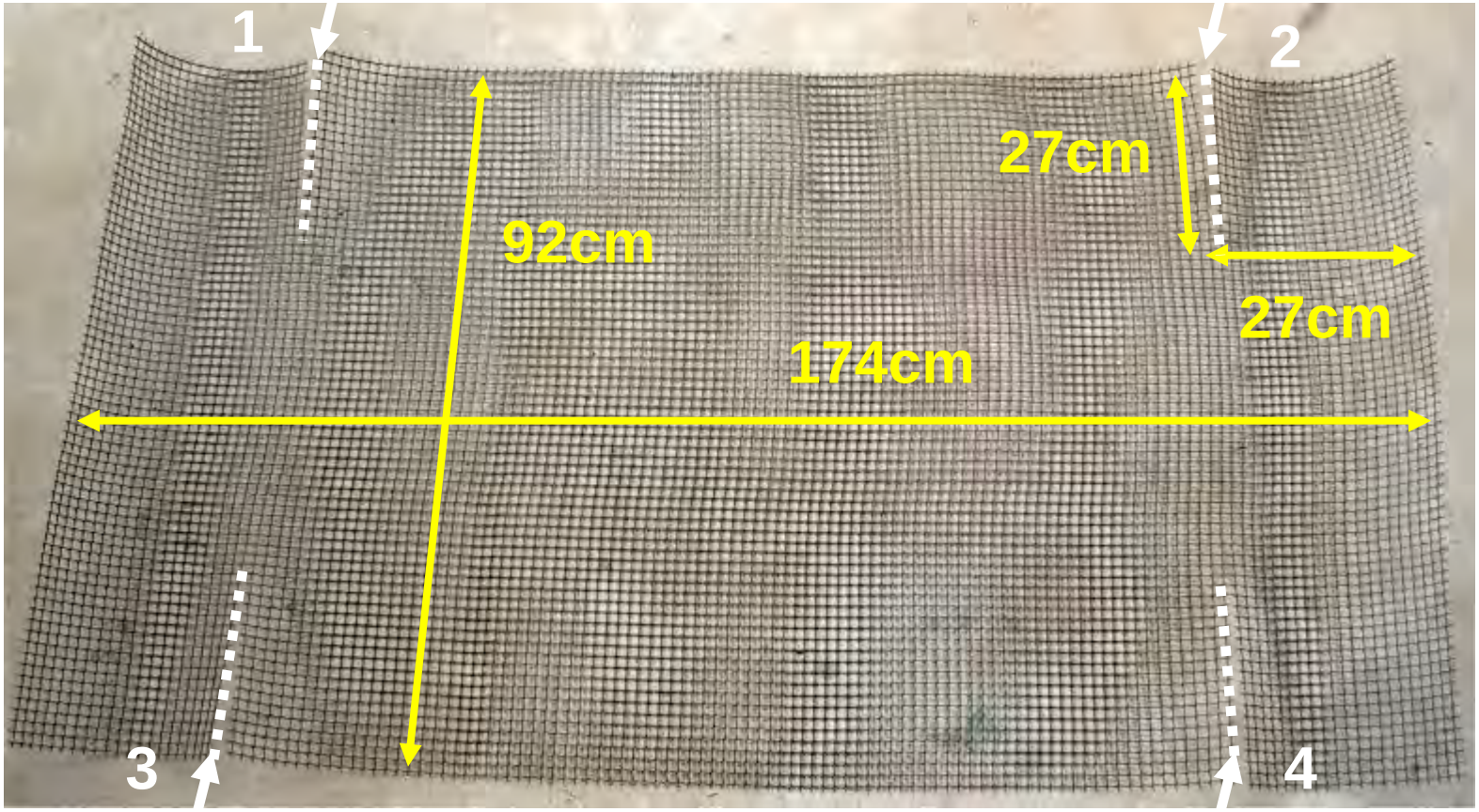
The net costs 44,000vt* for one roll (30m). It’s equivalent to 1,467vt/m.

Price for making one set of type B6 cage is about 3,500vt.

This material may last at least 2 years in proper use. (*Prices in 2008)

MAKING PART 1: Main body of the cage

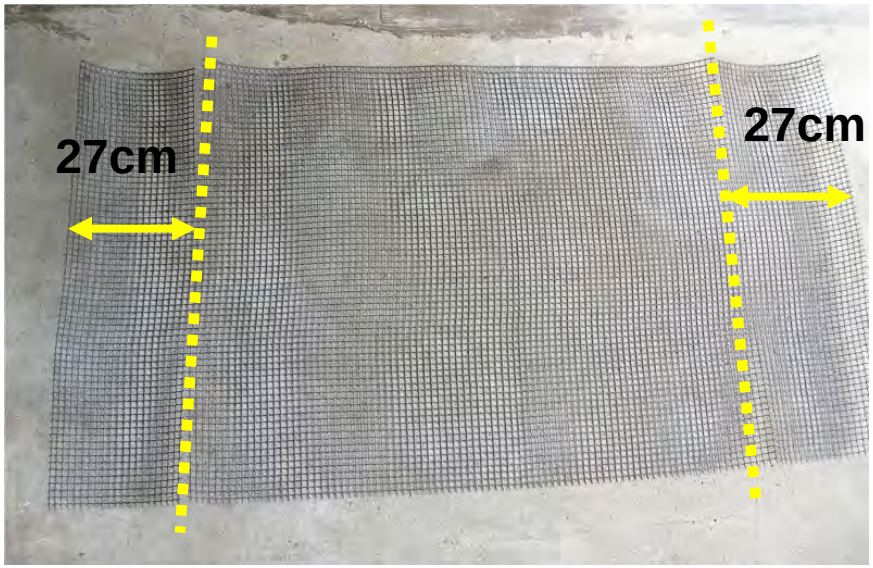
Measurements and cutting



Cut off a plastic mesh sheet at 174cm long and make 4 cuts as shown in white broken lines. Recommended width is 92cm, which is same as the standard width of Japanese made plastic screens.

MAKING PART 1: Main body of the cage

Folding 1

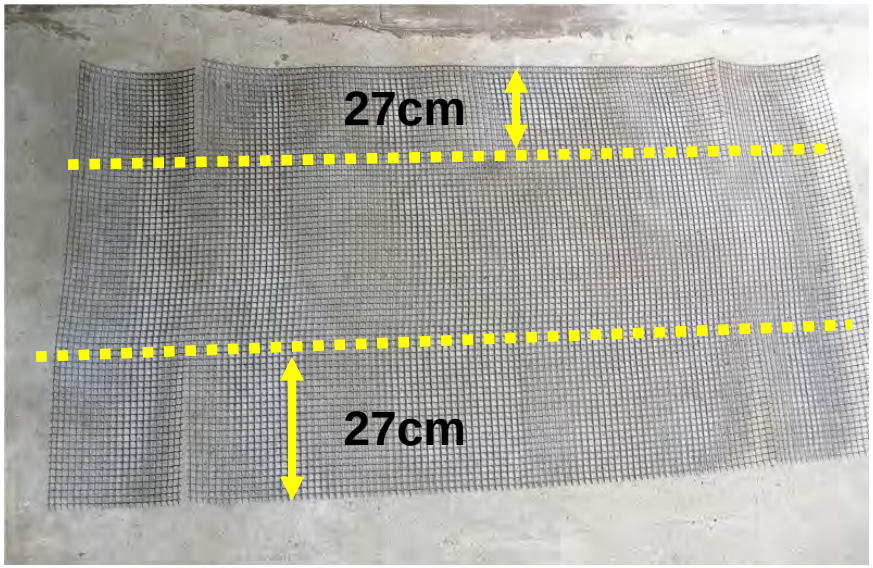


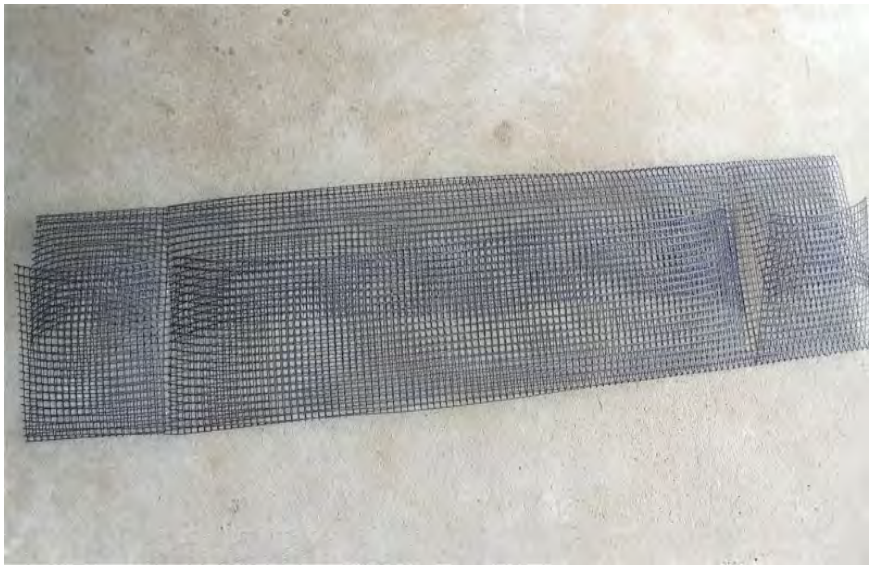
Fold the net along vertical lines as shown in yellow broken lines (left).

Press the folded lines firmly (right).

MAKING PART 1: Main body of the cage

Folding 2





Once open the folded net. Then fold it again along horizontal lines as shown in yellow broken lines (left).

Press the folded lines firmly (right).

MAKING PART 1: Main body of the cage

Assemble 1

Open the folded net (left).

Then start to assemble the cage using with tying wires or plastic cable ties (right).

MAKING PART 1: Main body of the cage

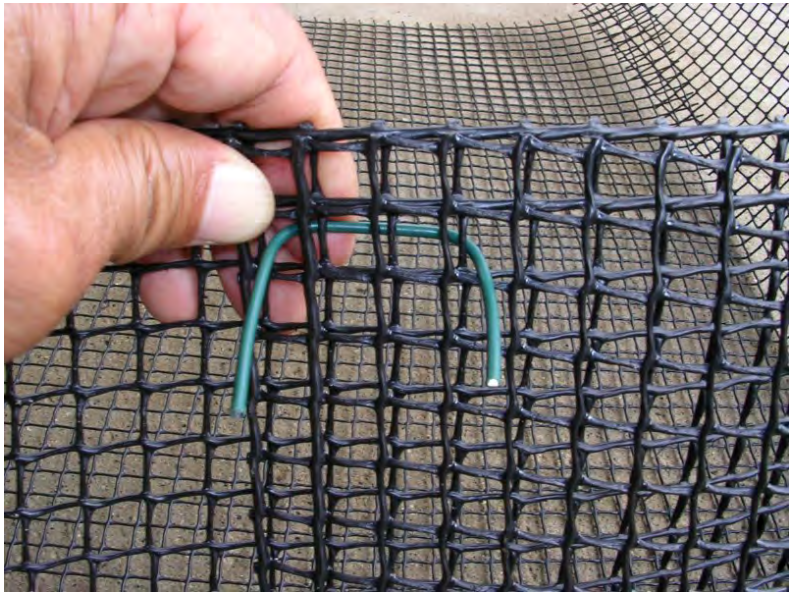
Assemble 2

For connecting nets, the PVC coated wire, which costs 150vt/roll, is convenient. 18 lengths of short wire ties are required for making one cage. For the quick fix, plastic cable ties are also used.

Conventional tying materials such as threads, small ropes and heavy fishing lines can be used, instead of expensive ones.

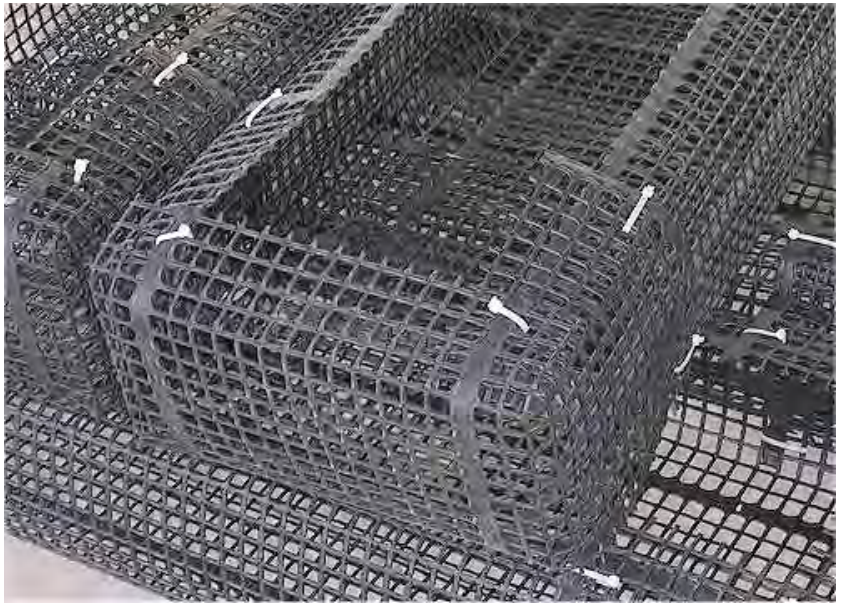
Short wire ties

Cheap and easy to prepare but hard to use.



Cable ties

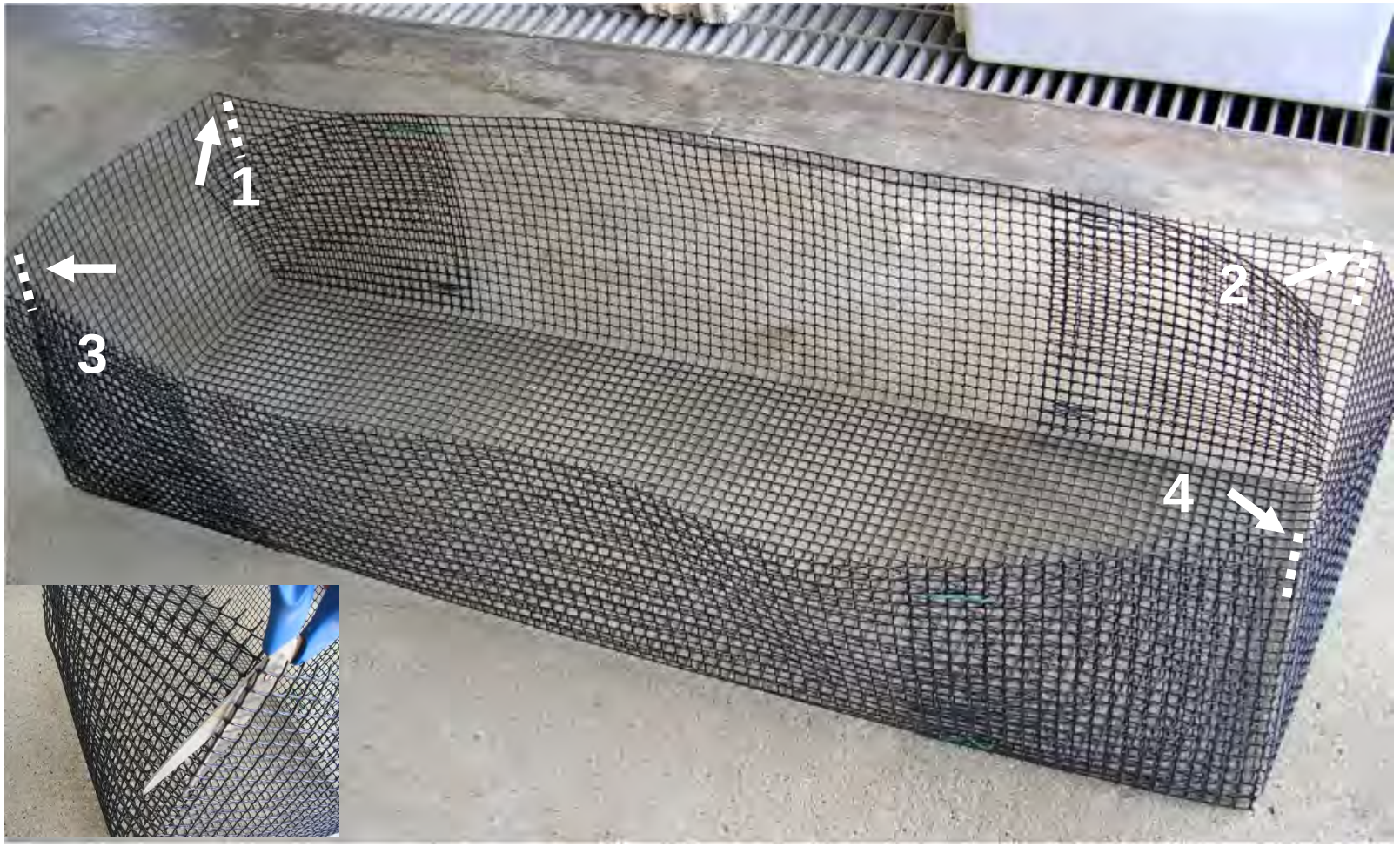
Easy to use but not durable in seawater.



Plastic cable tie, which costs 1500-2000vt/bag (100pcs), is commonly used. This material has some drawbacks such as higher prices and less durability in the field.

MAKING PART 1: Main body of the cage

Making inner flaps: cutting



Make 4 cuts with 6-length as shown in white broken lines.

MAKING PART 1: Main body of the cage

Making inner flaps: folding and tying

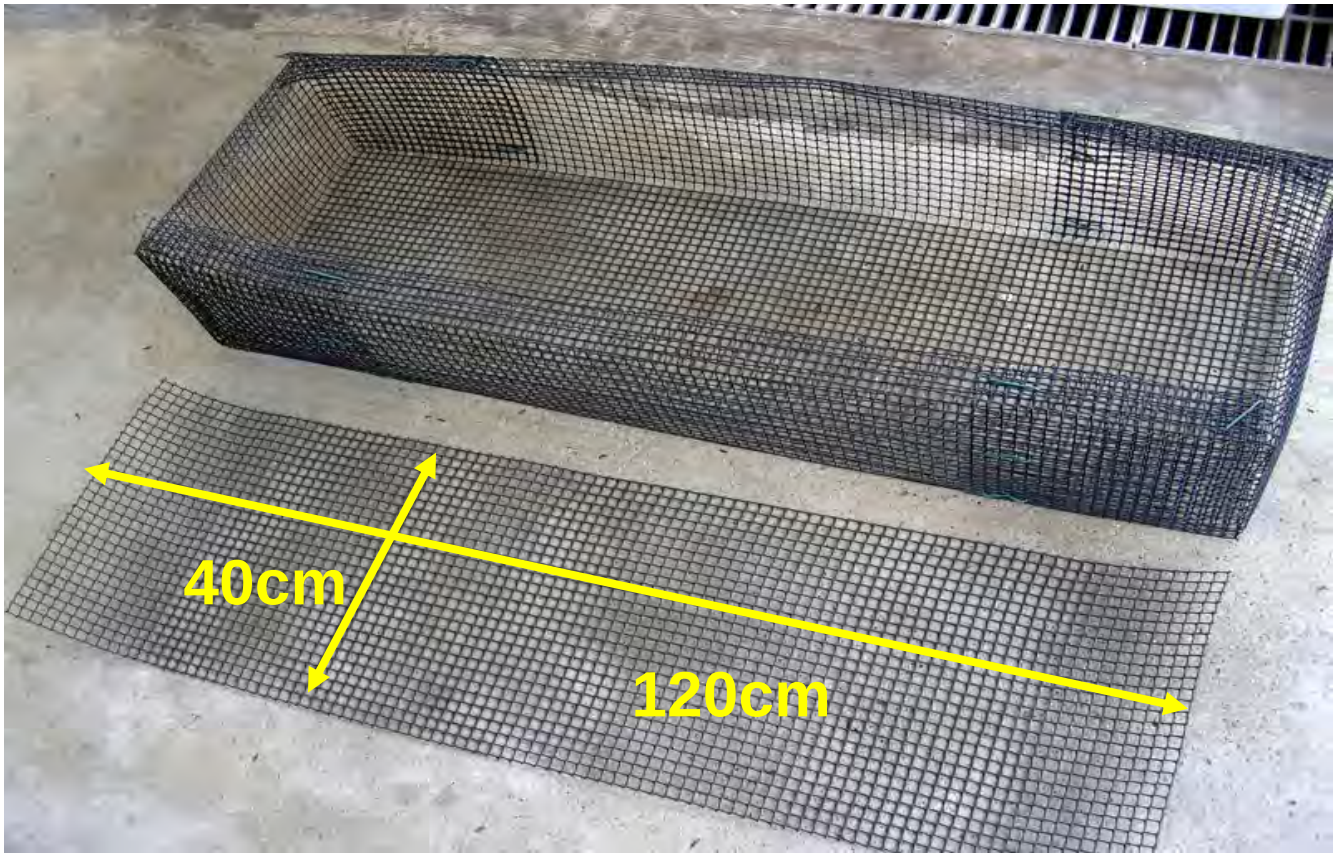
Fold the edge inside (left). Tie at the both corners of one side (right).

The other side is still free for fixing a lid.

This inner flaps prevent invasion of predators also give strength to the cage.

MAKING PART 2: Lid of the cage

Measurements and cutting



Prepare material for a lid of the cage. Simply cut a plastic mesh sheet according to the measurements.

MAKING PART 2: Lid of the cage

Fixing a lid

Place the lid on the free side then temporally tie (left). Since the cage and also the lid are not accurate rectangular, adjustment may be needed before fixing.

Tie firmly the lid on to the flap with four lengths of short wire (right).

COMPLETION OF THE TYPE B6P CAGE

Short cut (about 15cm) of electric wire is convenient to tie down the lid.

Above photo shows the 2.5mm ground earth wire, which costs 90vt/m.

COMPLETION OF THE TYPE B6S CAGE

B6S is made for the secondary ocean nursery culture. The difference between B6P and B6S is only mesh size. B6S is made of 21x21mm mesh.

Mesh size of the cage

Opening of 13mm mesh screen for B6P cage (left).

Opening of 21mm mesh screen for B6S cage (right).

RESCUE BLOCK 1

Classic rescue blocks will be used for stocking the fallen down clams in a cage. Just refer the photos and make your own one. Bottom of the mesh tray can be omitted (Only surrounding walls are enough workable).

Materials (left). An assembled mesh tray is placed on top of the concrete block (right). Small piece of mesh screen can be available from leftovers of the cage material.

RESCUE BLOCK 2

A new type of rescue blocks works perfect. The rings are made of old PVC pipes.

Cut the PVC pipe with a high speed cutter into small pieces (left).

Glue the rings directly on to top of the block (right).


“How to make a giant clam ocean culture cage”.
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