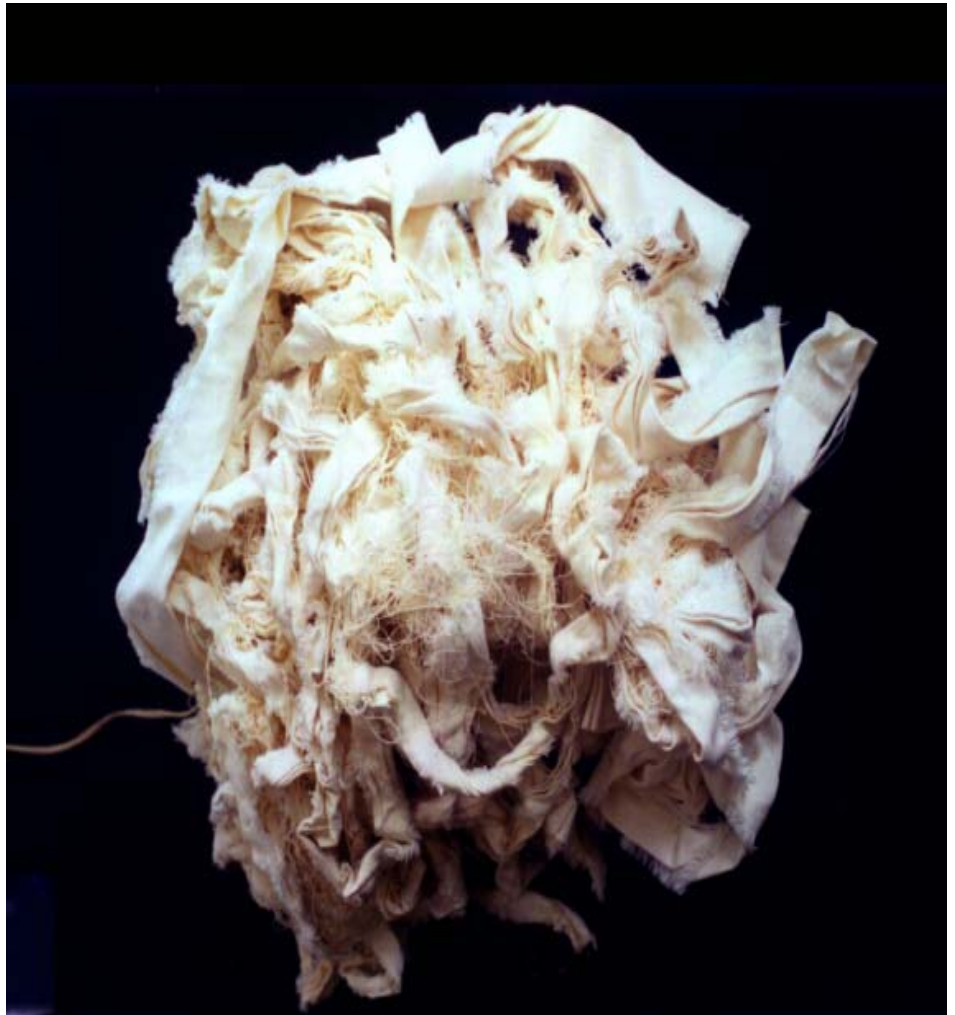


OPBJECTS



## DE GRUE

This object seems a boring heap of cotton, thrown on a metal tray.  
A closer look tells you it is slowly moving,



Hidden in the cotton is a metal arm, slowly moving the heap in an ellipse.  
A very quiet motor is driving the arm.

## KRONKELS



Rebar found in the metal-recycling, corrosion gives it an interesting tactile and visual surface structure, bend in 3 axis, instant Form.

## JUST TURNING



I just had to use this nice, high grade steel, shining, precision, big ball-bearing and the still bigger ball-bearing part.

So I welded together a frame for it of reused, tormented, twisted, pitted, low grade steel. (kronkels). After burnishing the rust off and applying a coat of varnish they fitted together well.

To get the parts turning, I added a motor of a disk drive (remember the big, double thick, single density 5 1/4 " drives, the ones with the flap door? Very sturdy motors they had.)

The thing turns slowly: you can admire the little balls inside rolling around. If you get bored looking at it, you press the handle at the left side. The engine will crank up to double speed, and the upper ring now appears to be a spinning ball.



## PING

I had named this piece "Temple bel", but my public renamed it to Ping.

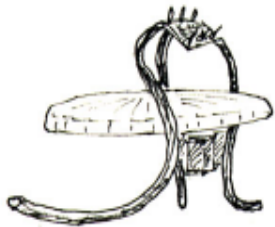
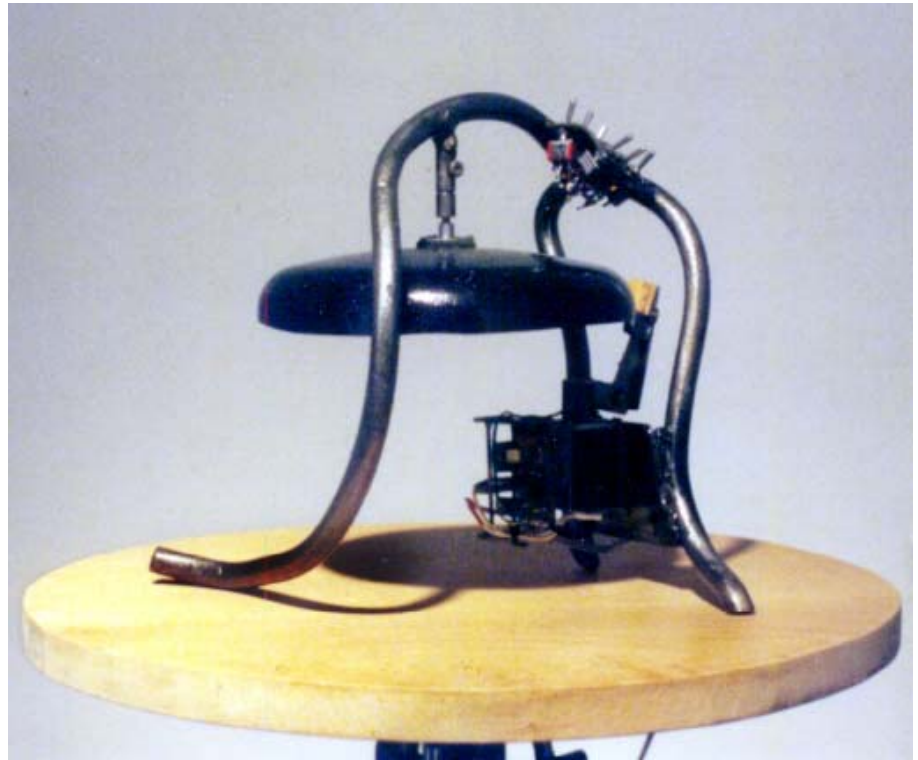
OK, Ping it will be.

Just like grandfather's clock in the hall, sounding every quarter hour, Ping too structures Time.

Our lives go faster now: Ping's repeat is adjustable from 5 minutes to 8 seconds. Adjustment is with the 6 switches on top.

The volume is also adjustable: from pleasant to uncomfortable loud.

For the construction I used the same method as in object Just Turning: welded tormented scrap iron. It is finished with clear lacquer.



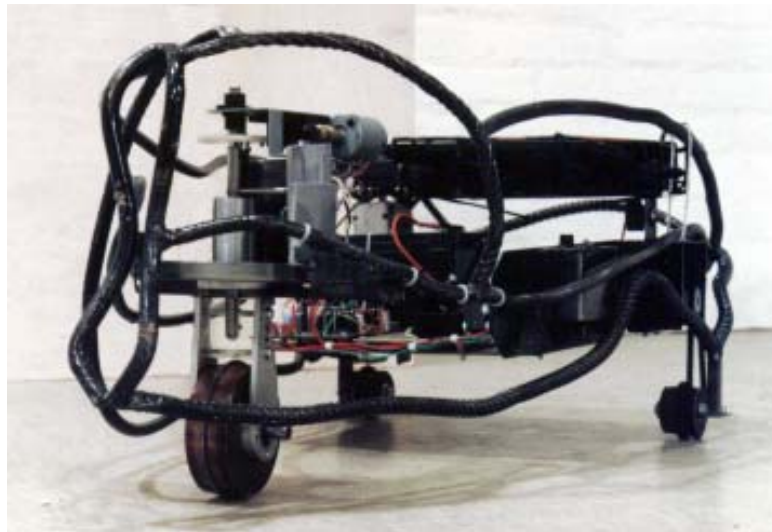
study sketch

## Object 'Bumpertje' (small fender)

A small electric cart drives slowly around in the exhibition room. Persistently it tries to push through the obstacles it encounters, and if it fails, it reverses the engine, turns its steering wheel and drives on. Result of this action is that it reaches every point in the room, since it drives in big circles.

The transparent exoskeleton, made out of twisted iron rods, can be viewed as two-sided symmetrical. The part which is pointing in the direction it drives, is accepted by the fantasy as the front, with either nose or beak, turning the other side into a rear.

Seen from a distance its very slow speed gives the illusion of standing still, but yet after a short while it has moved somewhere else. This effect disappears when viewed closer. Its speed is 40 centimetres a minute (1, 25 ft).



### Technical:

Three-wheeler, 1 driving side-wheel, the big wheel is for steering and from the third wheel the revolutions are counted by the onboard-computer. If this receives no more pulses, the driving motor is reversed and the steering motor activated.

To correlate its driving-circles to the room the front wheel's angle can be mechanically adjusted

Energy is from a lead-battery (7AH), the cart can drive for eleven hours, by then it must be recharged from the mains with the on-board charger.

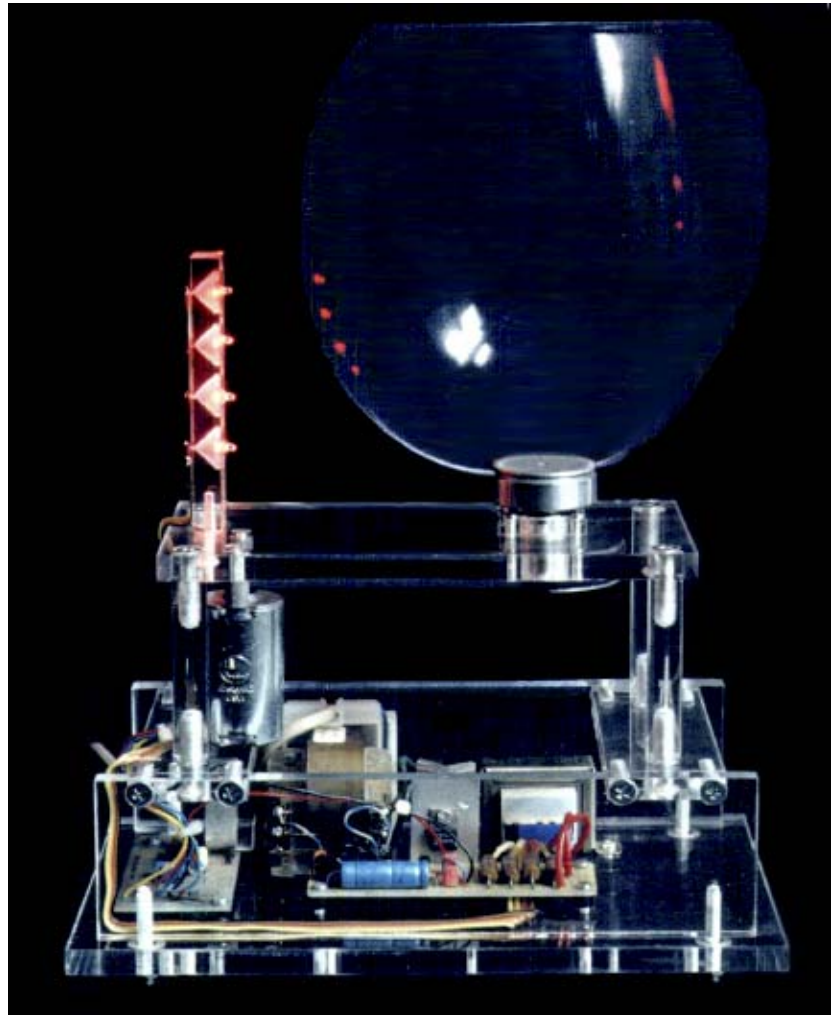
The computer is an Atari portfolio, going on for weeks without crashing, sometimes :-). If the battery voltage drops below 11,5 volts the computer switches the motor off.

Measurements: 75 x 38 x 25 cm.

## CHALICE

Inside the plexiglass construction is a bunch of cabling and electrical parts, to flicker the neon bulbs on the net-frequency.

On top a shiny set of metal strips is turning fast, causing stroboscopic effects.



Measurements 25 x 15 x 40 cm.

## A TESSERACT AND THE EYE OF HORUS

Last year I made a tesseract, just for the fun of it.

Now everybody knows that it is impossible to make a tesseract, because it is a four dimensional cube.

So what I made was a three dimensional projection/shadow of a tesseract. To be more precise, I made a 3d projection of what I *imagined* a tesseract to be. After encountering the concept of a tesseract, I began -unhindered by any mathematical knowledge- to reason which properties it should have.

It went thus:

a square (2 dimensions) has four corners ( $2^2$ )

a cube (square + square pulled out) has eight corners ( $2^3$ )

a tesseract (cube + cube pulled out ) has sixteen corners ( $2^4$ )

Having established that, it was not difficult. A cube from which each corner is diagonally connected to another, smaller cube.

Diagonally and smaller because it is a projection, yes?

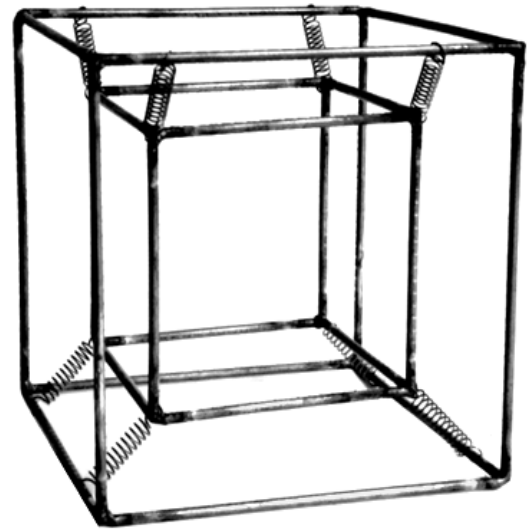
In a jiffy I created it as wire-object and called out: "Look, a tesseract!"

The reaction of my audience to this intellectual and artistic achievement was a bit cool. "Oh" they said.

So I put the Eye of Horus inside. This was a magical object I had created earlier from three bearing linings and a shiny metal ball.

This combination, which I also called the Eye of Horus, fared far better, and I sold it at an last exhibition.

Another person wanted to have one too, and one was ordered

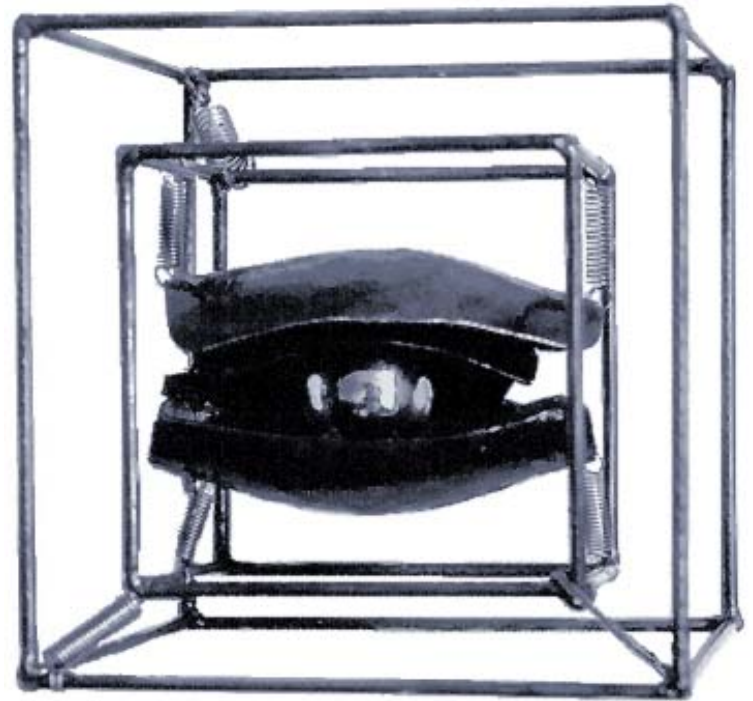


This tesseract's diagonals are metal springs.



## A TESSERACT AND THE EYE OF HORUS

Since I had no more linings, I had to hammer the shape of the Other Eye of Horus out of sheet steel and consequently it became nicer than the One, and when a friend and colleague saw it, she wanted one too, (which will be named The Third Eye of Horus).



## And counting

A machine with four states.

In rest, the counter on top patiently counts seconds from the moment the machine is switched on. Every 1000 seconds it starts shouting for 10 seconds (other) numbers, like: Einst, zwei, fünef, sieben null!

As a visitor comes near, the display turns over to reeling random numbers.

After the tenth time the displays tilts, only glowing points are visible, at the same time the machine plays the Schöne Blauwe Donau waltz, (performed by PC-speaker).

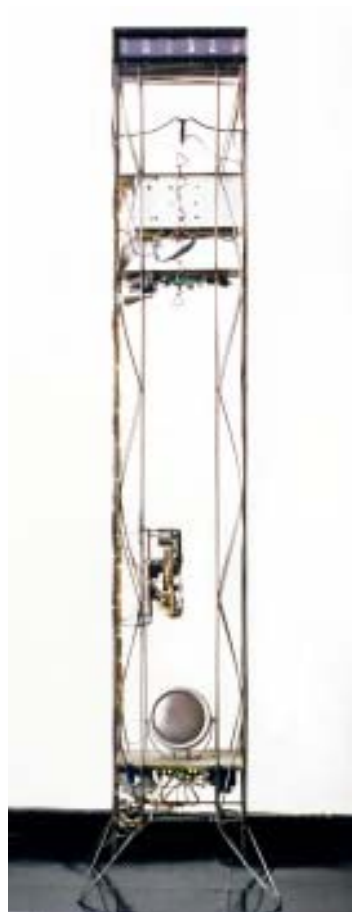
The counter on top, an E.A.C DIGIVISOR MARK 2 is unique.

Build ~ 1960 in the UK (I guess), it uses a moving coil mechanism and an optical system to project numbers onto a little screen. Characteristic of this system is that the numbers reel for some time on the screen, before coming to rest.

I had to use d/a conversion and a micro controller (a 8052) to get it to work. A double cassette player is used to play the tape recording of the (Russian?) shortwave transmissions of number-codes, spoken by a woman, (Now off the air), and the waltz. If necessary, the tapes are rewound. An antenna - the chain in front - picks up the disturbance of the electric field, caused by a nearby visitor.

I got the Waltz from the XT version of the C64 game ELITE.

measurement: 165 x 30 x 20 cm.



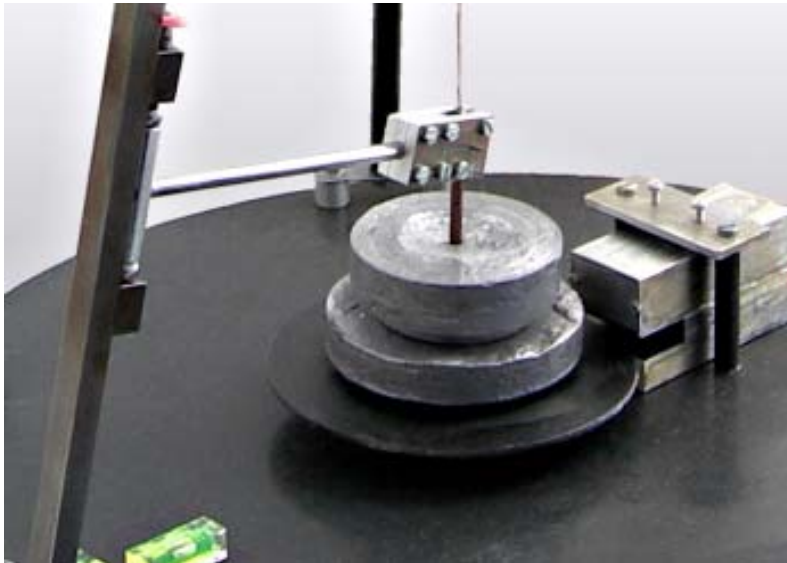
## GEPHONE



A machine to detect vibration.

The weight is suspended from a wire and supported in one plane by a metal rod. Movement is picked up by the sensor, and after amplification the signal is fed to the lamps on top, and to an external loudspeaker.

Your footfall earns you flickering lights and loud hums.



## ZWIEP

A machine to swish the metal strips.

You turn the crank, the strips will oscillate through their cycle...  
To swish energetically as soon as you find the right turning speed.  
The fat flywheel will help you to keep a steady speed.

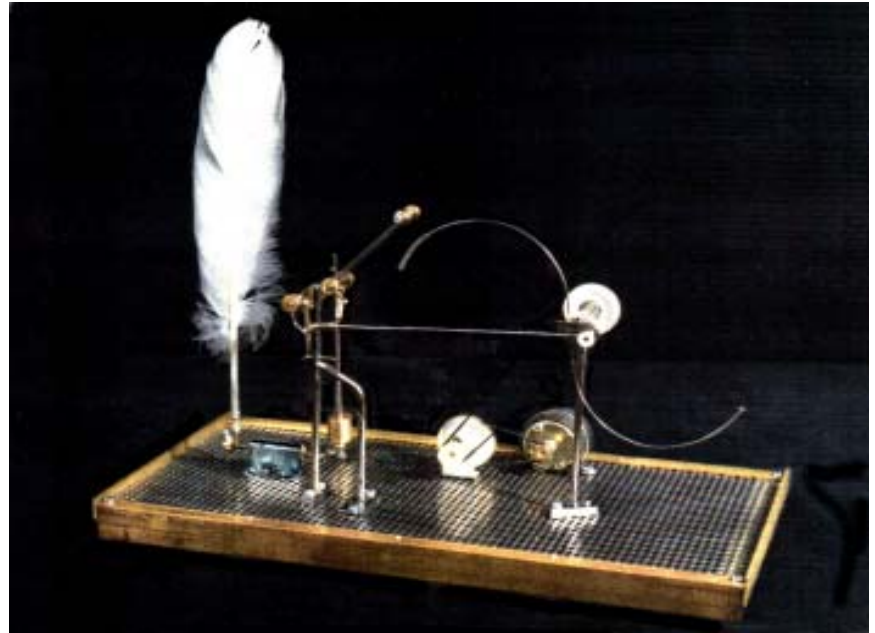
Stroboscical picture



## WIND

A steam-engine without steam, constructed of pins and iron wire.

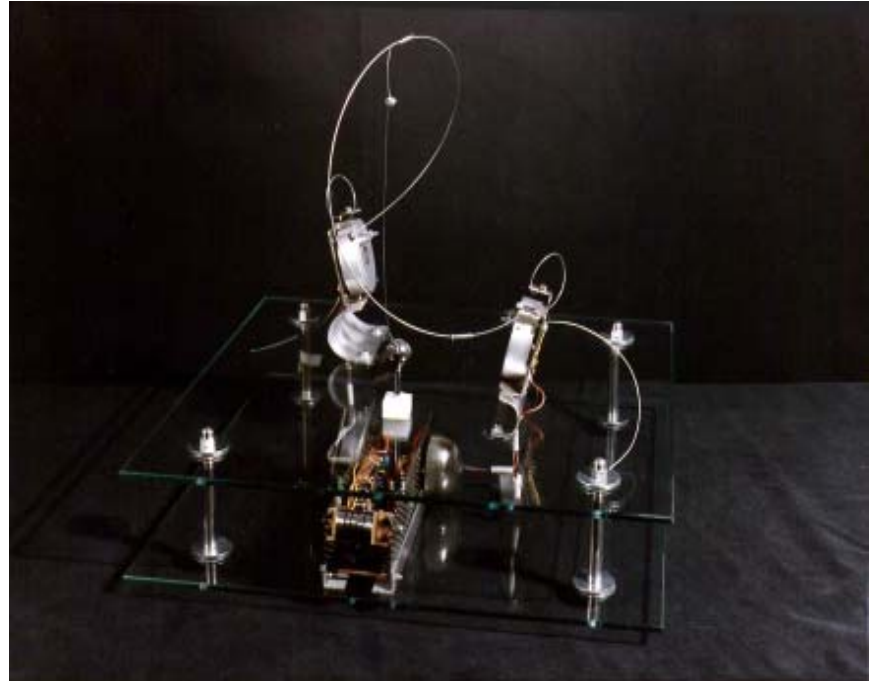
A useless complex amount of belts, wheels and rods converts the rotation of the motor to a small movement of the bird's feather.



22 x 16 x 30 cm.

## THE TASK

A rubber ring is suspended from the large bend of steel wire. On the glass plate is a metal ball which fits the ring. The ring could fall over the ball as the wire is moving violently by two stepper motors.

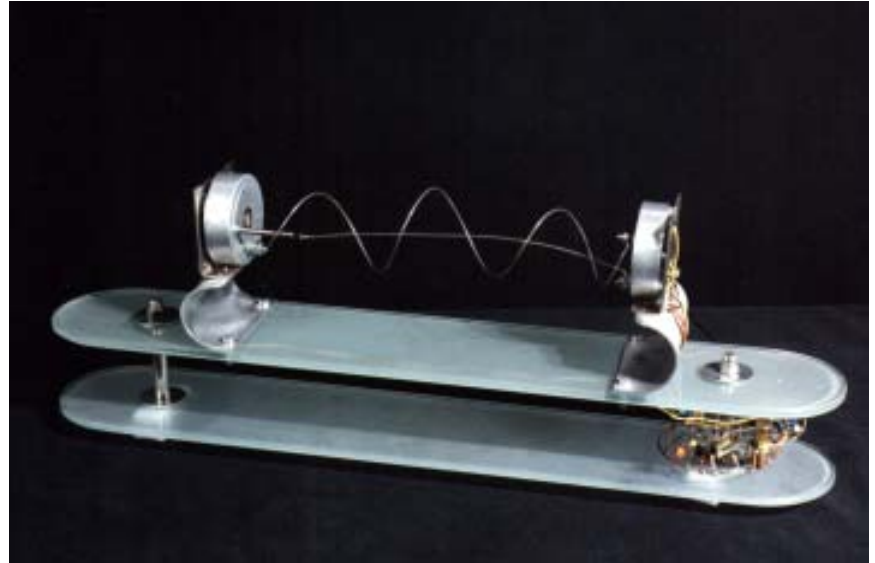


Lower glass plate: movement sensor and electronics.

38 x 38 x 30 cm.

## ROTATE

The spiral will rotate, but not convincingly: the drivers cooperate badly. Also the start is problematical when the drivers have different ideas over the direction of rotation.



Both steppermotors are electronically coupled. The resulting rotation is irregular.  
30 x 10 x 20 cm.

## WIEBEL

One piece of steel wire is anchored on the glass, the other is free to swing to and fro. A led underneath flickers on the rhythm.



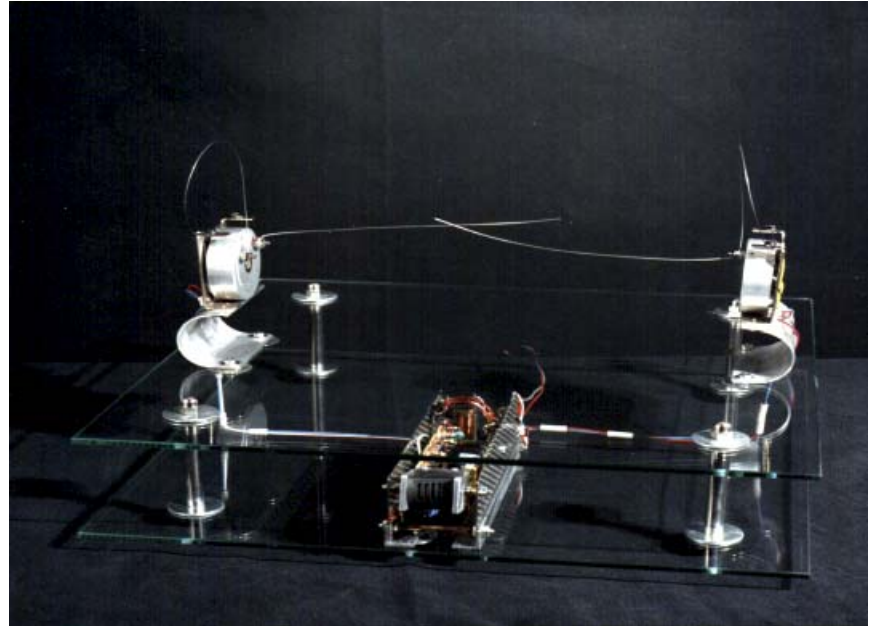
By the short stroke of the stepmotor the loose wire will swing.  
Round, 30 cm.



## SWORDFIGHTERS

This can be seen as two 'wiebels' facing each other so it looks they are fighting.

The two wires circle each other and don't touch.



38 x 38 x 30 cm.

## WIDDERSHINS

The name of this object refers to the direction of rotation, anticlockwise.

The rotation speed is inconstant, one turn will take two seconds.

A sensor turns the object on for thirty seconds.  
14 x 14 x 25 cm.



## VINGEROEFENINGEN



Tubes, electroscopes, stirlingmotor, sparkgap, counter, centrifugal regulator as shown in the exhibition 'finger exercises' in the HKK (haagse kunstkring) in august 2008

