

CALL FOR PARTICIPATION: ACTION SHARING 2

Preamble

The Sharing is holding an Ideas Competition for art works that make syncretic use of certain mechatronic elements. This is the only competition category. See the entry form for details.

Entry

Action Sharing 2

Competition Notice

Art. 1 Scope

The Sharing, in partnership with the Torino Chamber of Commerce, calls for participation in the second Action Sharing competition. The aim of this competition is to bring syncretic innovation to Piedmontese industry, in which art, science, research and experimentation unite and combine to create new tools for innovation and the management of creative capital in the Piedmont region.

Art, music, theatre, performance art, dance and mechatronics are key areas of interest for the competition holder, The Sharing. The Turin Chamber of Commerce operates in a region where both art and technology are strategic sectors of the local economy.

The competition entry judged the best will win a prize of euro 1500*.

On the basis of a feasibility study, the competition holders may decide to manufacture this idea in partnership with the artist and with the entities sponsoring the project. The development and the technical production will be realized in collaboration with LIM (Interdisciplinary Laboratory of Mechatronic).

All competition entries are required to incorporate at least one of the two following specific technologies:

- Electric Motor

This electric motor consists of a fixed chassis and a rotating part. The motor can be electronically controlled by computer to create a variety of speeds, angular profiles and oscillatory motions. Its frequencies of oscillation can reach values from less than 1 Hz, to audible frequencies and above¹.



Figure 1 : Very small brushless motor



Figure 2 : Industrial brushless motor

*one thousand, five hundred euros, including tax and social security contributions.

- Linear Voice Coil Actuator

This linear voice coil actuator consists of a fixed chassis and a linear moving part. It can also be electronically controlled by computer to oscillate up to 10 mm at various frequencies, from under one hertz to audible frequencies and above².



Figure 3 : Laboratory shaker



Figure 4 : Industrial linear voice coil

Artists may enter a maximum of two entries in the competition, to be developed either individually or collectively.

Competition entry forms and artwork descriptions will be accepted in either Italian or English.

Priority will be given by the judges to projects that integrate the Arduino platform with one of the technical elements described above.

The winning entry will be selected by a specialist panel of judges consisting one member from the Chamber of Commerce, one member from the Polytechnic University, one member designated by local business, one member from the competition holder, and one expert in the sector. The winner of the competition will be informed by 31st December 2010, and an announcement will be made on the website www.toshare.it

Section 2 – Purpose

The aim of this competition is to mingle electronic artists and their ideas and concepts with businesses and institutions from the Piedmont region, where excellence in the mechatronics industry traditionally abounds. We are seeking applications for these two devices that would never be found through any other means of research.

Section 3 – Terms and Conditions of Entry

The competition is open to both Italian and foreign artists. Artists may enter as individuals or as collectives, or in any other form. Artists that are part of collectives may choose to enter the competition individually.

Entries are to be submitted via the website <http://www.toshare.it/actionssharing2>

The deadline for entries is midnight, 30th November 2010.

The winner of the ideas competition will be invited to supervise the subsequent planning and production of the project itself.



Section 4 – Liability and Expenses of Competition Entrants

All costs incurred to participate in the ideas competition, including costs connected with the creation of the website required and described in section 6 below, will be borne exclusively by the competition entrants.

The competition entrants will be exclusively liable towards third parties for the contents of the websites required to take part in the competition. By participating in the competition, entrants agree to hold harmless and indemnify The Sharing and each of the organisers of the competition against third party claims of copyright infringement or unlawfulness.

Section 5 – Documentation Required to Participate in the Competition

Entrants will be required to complete an on-line entry form to participate in the competition. This form is available here:

<http://www.toshare.it/actionssharing2>

The following information is required on all entry forms:

- Title of the project
- C.V. of the artist or the artist collective
- Brief description of the work. (max. 50 words)
- URL of the website where further information and details of the work can be found, including an explanation of the project, sketches, drawings, production plan and preliminary cost estimate – see section 6.
- Please do not send hardcopy, DVDs, or CDs.

Section 6 – Website Specifications

The website entry should contain:

- A description of the work (max. 500 words) explaining the central concept and technology used, along with images, video or sound recordings of the work.
- C.V. of the artist or the artist collective (in the case of collectives, the C.V. of each member of should be provided)

Section 7 – Judging Panel

The panel of judges will hold a private meeting to assess and shortlist the competition entries. A single winner to receive the competition prize will be selected from the shortlist.

The panel of judges will consist of members designated by the Turin Chamber of Commerce, the Polytechnic University of Turin, local businesses and the competition holder, and an art expert.

After an examination of the entries, the panel of judges may decide not to award the prize, where none of the entries are found to meet competition requirements.



Section 8 – Competition Office

The Competition Office is located at
The Sharing Association.

Via Rossini 3
10124 Turin (Italy)
tel. +39.011.5883693
fax: 0039.011.83.91304
info@toshare.it

Section 9 – Intellectual Property and Copyright of Selected Works

By entering the competition, artists will implicitly give their (non-exclusive) consent to the publication and reproduction, in part or in whole, of their entries by The Sharing for the purposes of cultural promotion.

Section 10 – Dissemination of the Competition

This competition notice, consisting of three pages, will be published on-line on the website www.toshare.it, and will be displayed at all institutions of reference.

NOTES

1. The **electric motor** consists in a fixed chassis and a rotating part, with the rotating part lying on bearings to reduce friction. When the electric motor is connected to a power electronics and a control system the motion of the rotating part can be controlled in order to obtain the desired speed, or follow complex angular profiles.

The rotating part can be used to power a rotational machine, but also to leverages to obtain linear oscillatory motions, the control of the rotational movement includes exciting oscillations around a desired position.

Frequencies of oscillation can reach values from less than 1 Hz, to audible frequencies and above.

The desired motion or torque profile can be provided to the control system by means of a personal computer.

2. The **linear voice coil actuator** consists in a fixed chassis and a moving part, the moving part is free to move linearly in a single direction, when connected to a control system and power electronics it is possible to control the movement of the moving part.

The moving part can be attached to any element of a more complex structure in order to transmit forces and vibrations to it, and control its movement.

Control of the movement includes exciting oscillations (within the maximum displacement, usually up to 10 mm) at variable frequencies, applying the desired force to an external element, impose the desired motion profile.

Frequencies of oscillation can reach very high values, from less than 1 Hz, to audible frequencies and above. Although the working principle is the same used for Hi-Fi speakers, different models are commonly used for dynamics applications different from the audio field.

Like in electric motors the motion profile can be provided to the control system by means of a personal computer.