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♥ LOONO



## TACTILE DIDACTIC TOOL BASED ON VIBRATION

#### LOONO

P R O J E C T	Tactile didactic tool
K E Y W O R D S	Variability
	Handicap
	Playful
	Haptic

#### DESCRIPTION

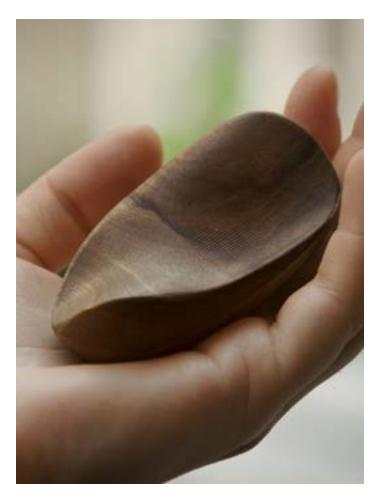
Tactile didactic tool based on vibration for children with combined hearing and vision loss



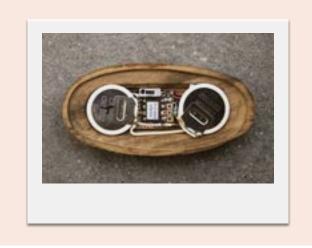


The Loono didactic tool is focused on the development of tactile perception, acting at the same time as a relaxing object and an educational tool. It intends to stimulate the brain via vibrations and thus develop tactile-haptic perception and proprioception (the ability to coordinate body in space). The user concentrates on the search for similar vibrations, by which the tactile sensors are simultaneously activated, since touch is one of the most important senses for deaf-blind individuals. The haptic device is primarily intended for children with combined hearing and vision loss deaf-blindness. The principle of the game is similar to pairs, based on perception of different and similar vibrations. The child must first concentrate on finding a pair of wooden parts with the same vibration. Once the right pair of stones (i.e. with the same vibration) is found and connected, they begin to vibrate with a 'winning' tune, which is a reward for the child and confirmation of the correct choice. If non-matching stones are connected, they will cease to vibrate, which is a feedback for the child about the incorrect choice. By connecting two matching halves an integral object is formed, representing a relaxing object that changes its vibration to a soothing phase with prolonged vibration sequences, which is the abovementioned reward for the child.

The vibratory stimulation can even lead to pacification of users with symptoms of restlessness or hyperactivity. The tool can thus be applicable for basal stimulation as a vibrational relaxing stone. It can become a great tool for those who







are looking for tactile and proprioceptive stimuli, bearing in mind that the earliest forms of interaction between a mother and child right at the prenatal stage are somatic, vestibular and vibratory.

The individual segments of the tool are made of wood. The shape and the material are selected so that they are comfortable for the baby to touch. Wood is a warm material, which bears vibrations very well and soothes the user at the same time. The shape of the whole product as well as of its parts have been molded for the hand of a child.

#### Awards with Loono

• Finalist and winner in the Czech National Award for Student Design 2015

• Excellent Student Design 2015

The author gets Symbol Competition for Excellent Student Design 2015

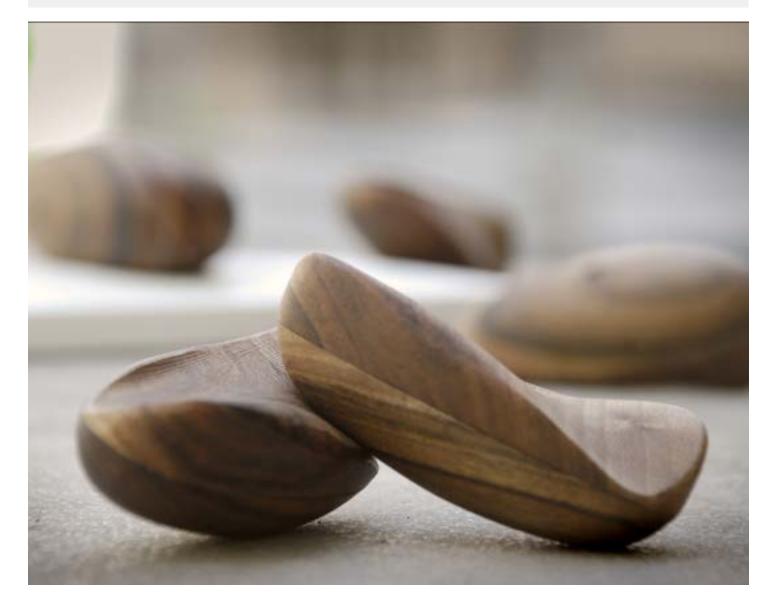
• Prize Exit Design awarded by Dean of the School of Art and Design, University of Jan Evangelista Purkyne

# **Exhibition with Loono**

• Project Loono travels the world with the exhibition New G(o)ods! and Young and successful / Story of a young Czech design (Prague - CZ/Bratislava - SK/ Kielce - PL/Stuttgart - DE/Wien - AT)

• Exhibitor at Lódz Design Festival in Poland in October 2016

• Exhibition Designers for Children Czechdesign 2017 in Prague, CZ



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LOONO



# LOONO

Tactil didactic tool based on vibration is intended not only for multiple-handicapped children. It is also oriented on development of tactile perception and can serve as an educational tool or relaxing instrument. It is based on Memory game: deaf and blind children or other users are putting together two parts of a pebble with the same vibration. This tool is even worldwide unique.

Statement of the International Jury

## LOONO

This tiny tactile tool first attracted my attention by its nearly non - design inconspicuousness - unsurprising shape, processing, and material. But the greater my astonishment was then I got to know why this aid was designed. Functional and technical solution is transformed into tactile - rhytmic - educational play. In my opinion, this piece of work is worth supporting and attention because it is aimed at handicapped children and offers a considerable social potential.

doc. Mgr. A. Pavel Mrknus

dean of the Faculty of Art and Design UJEP in Usti nad Labem





#### Thanks to:

Eliška with mum, Centre for deaf and blind children EDA, Mgr. Kateřina Kosová (Counsellor early care), Mgr. Jiřina Čermáková (Children's Home and nursery school special Beroun), PhDr. Dagmar Moravcová (Center for Visual Impairments (CPV) - Hospital Prague), CTU -Czech Technical Universtiy in Prague, Jiří Rotta (HOBBYROBOT)

