



**Global Junior
Challenge**
Projects to share the future

Published on *Global Junior Challenge* (<https://www.gjc.it>)

[Home](#) > LASER HARP AID IN AUDITORY DISCRIMINATION

LASER HARP AID IN AUDITORY DISCRIMINATION

Tipologia dell'ente/Kind of organization: School

Nome dell'ente che lo ha realizzato/Organization-institute presenting the project: Instituto S do Sa

Regione/Region: Rio de Janeiro

Paese/ Country: Brasil

Città/City: Rio de Janeiro

Descrizione del progetto/Describe the project : The purpose of this work is to assist in the interaction discrimination using a sound object without strings, w light beams in the shape of a 3D printed harp, which musical note, already programmed and inserted into not perceive it visually, but their fingers will produce t instrument will be able to help in day care centers an allied to teaching and skills, easy to use and for child stimulated in terms of motor coordination, auditory an

Link al video di presentazione/Link to the presentation video: <https://photos.google.com/photo/AF1>

Categoria del progetto/Project category : Educazione fino ai 15 anni/Up to 15 years

Uso delle tecnologie / Use of technologies: The purpose of this work is to assist in the interaction bet discrimination using a sound object without strings, which beams in the shape of a 3D printed Harp, which when ea musical note, already programmed and inserted into the not perceive it visually, but their fingers will produce the s instrument will be able to help in day care centers and sc allied to teaching and skills, easy to handle and for childr stimulated in terms of motor coordination, auditory and ta

Indicare gli elementi di innovazione del progetto / What are the innovative aspects of identify and the project?: invisible bea


Con quanti utenti interagisce il progetto?/How many users does the project interact This project f with? : that assesses

Di quali mezzi o canali si avvale il progetto?/Which media or channels does the project III SIMPÓ use?: Pag 181 h
RESUMO
<https://pho>
<https://pho>

Il progetto è già stato replicato? /Has the project already been replicated? : Auditory perception ref

a sound stimulus, from mere noise to music and speech complexity. The term hearing refers to the sense, that is, the physiological ability to receive sound from the environment to our nervous system as input.

Quali sono le aspettative future?/What are future expectations?: We hope that we can interact with obtaining greater learning and improvement in the field of auditory perception and hearing ??rehabilitation, including children

Allegati/Attachments:  [laser_harp_aid_in_auditory_discrimination.pdf](#) ^[1]

Durata progetto/project duration: 12 months

Risultati ottenuti/Results: The use of educational robotics implemented in a classroom, at home in this moment, has as a function in the early years to assist in the detection of Deafness and help in distinguishing children with disabilities hearing or diagnosed ASD and/or other conditions. This assistance is indirectly, through playfulness interactive and investigative. Unfortunately, the classroom often does not have the means to help them. to create activities that improve auditory perception, however it refers to the process of construction of the mental representation provoked by a sound stimulus, from mere noise to music and speech complexity. The physiological ability to receive input from the environment to our nervous system. With this purpose in order to meet this demand, the Laser Harp was made using Leds and a programming with Arduino helping auditory discrimination. In this way, with its beams of lights, invisible and audible and a sound game with a visual program. Two teachers and a therapist accepted the challenge of using it. In a period of six months, it can be considered that the activities made possible a significant improvement. In all, the interaction with the Harp and the desire to improve always overcoming challenges. P. aged 5 years, diagnosed with hyperactivity, it was observed that he became more perceptive, calm and smiling, curious, interacted and was surprised that the sound was invisible, but the sound was produced by touch. A unique opportunity. In this interaction, musical notes were more acute and it didn't bother him. A. aged 7 years, diagnosed with Autism and Hearing Loss, uses a hearing aid, it was observed that the sound attracted his attention, presented great difficulty for the performance of movements with touch. On the other hand, his coordination is still under development and was curious with the sound produced. When he produced sound when touched, he performed the movements with all his fingers. When he produced a different sound, arousing interest. The interaction with the Laser Harp exceeded our expectations.

Cognome del coordinatore del progetto/project coordinator surname : Jeane de Fatima Moreira Branco

Nome del coordinatore del progetto/project coordinator name : Jeane de Fatima Moreira Branco

Il Progetto ha contribuito ad affrontare la pandemia da Covid-19? / Has the project yes helped facing the emergency of Covid-19? :

Fondazione Mondo Digitale

Via del Quadraro, 102 / 00174 - Roma (Italia)

Copyright © 2000-2010 - Tutti i diritti riservati.

Organizzazione con sistema di gestione certificato UNI EN ISO 9001:2008 / CERMET n.6482 del 26/04/2007.

[Privacy Policy](#)

Source URL: <https://www.gjc.it/en/content/laser-harp-aid-auditory-discrimination>

Links

[1] https://www.gjc.it/en/system/files/laser_harp_aid_in_auditory_discrimination.pdf