



## Research and Development of an Electronic, Interactive and Connected Toy. CDTI, Centre for Industrial Technological Development

### Type of Project Ongoing research project

#### Summary

Research is being carried out to develop a connected, electronic and interactive toy that can become an interactive playmate for children with and without disabilities. All elements of access, use, interaction devices, etc., will be based on the premises of accessibility.

#### Low-tech, high-tech products, services and contexts for play

Research is being carried out to develop a connected, electronic and interactive toy that can become an interactive playmate for children with and without disabilities. All elements of access, use, interaction devices, etc., will be based on the premises of accessibility. Taking account the universal design to create a "toy for all"

#### The context of use

Home, but also, it will be able to use in schools and rehabilitation centers.

#### Type of play in this play system

##### Cognitive

Symbolic
Rule play (including videogames)

##### Social

Solitary
Parallel

#### Objectives related to play according to ICF-CY

##### Play for the sake of play: Major life areas - d880 enagement in play

d8800 solitary play
d8802 parallel play

##### Community social and civic life - d920 recreation and leisure time

d9200 play
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##### Play-like activities: Therapeutic and educational objectives

d3 Communication
d7 Interpersonal interactions and relationships

#### Number of participants

>20
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#### Chronological Age

3-6 years
6-12 years

### **Development Age**

3-6 years
6-12 years

### **LUDI Categories of disabilities**

Mental/intellectual impairments::
mild
Hearing impairments:
Partially hearing impaired
Visual impairments:
Partially sighted
Communication disorders (speech and language disorders):
Autism Spectrum Disorders:

### **Explanation on the use of low-tech, high-tech devices, services or contexts**

#### **Explanation**

Visual instruction with pictures or drawings
Guided discovery: therapist/researcher coaches the participant so s/he discovers how to use the assistive technology

#### **Involvement**

Adult: therapist/educator/researcher
Peer with disabilities
Peer without disabilities

#### **Role**

Non-participatory observer
After the instruction, providing supervision during play

### **Evaluation of objectives and outcome measures**

#### **Description of outcome measure(s)**

Observation by professional/researcher providing the play experience
Video analysis

### **References to the intervention or research project**

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### **Keywords**

Interactive toy, connective toy,  
Universal design, Accessibility, children with and without disabilities