



## 3D print design for adapting toys

### Type of Project

Ongoing research project

### Summary

CEAPAT, Spanish Reference Centre of Personal Autonomy and Assistive Products, during the last years is increasing the experience on the creation of 3D based assistive products. CEAPAT-IMERSO catalog includes accessible buttons, supporting facilities for people with motor impairments and tools for children to promote their opportunities to play. In order to share these designs, they are available in the site Thingiverse. The amount of designs created by CEAPAT are 20. The aim of this experience is helping users, families and professionals that are interested in printing their own assistive products.

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

During the last two years some professionals working in CEAPAT are developing assistive products with a 3D printer. Some of these designs can be very useful for children with disabilities as they facilitate the opportunities for play. In order to share these designs, they are available in the site Thingiverse. The amount of designs created by CEAPAT are 20. The aim of this experience is helping users, families and professionals that are interested in printing their own assistive products. One example is the one in the picture: a switch designed for people with limited movement to operate communication devices, toys and other electronic equipment.

<http://www.thingiverse.com/ceapat/designs>

### The context of use

Home, school, rehabilitation center.

### Type of play in this play system

#### Cognitive

Symbolic

Rule play (including videogames)

#### Social

Solitary

Parallel

Associative

Cooperative

### 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

d8803 shared cooperative play

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

d9200 play

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

b1 Mental functions

b2 Sensory functions and pain

b7 Neuromusculoskeletal and movement related functions

d1 Learning and applying knowledge (learning through symbolic play, learning through pretend play)

d3 Communication

d4 Mobility

d7 Interpersonal interactions and relationships

### Number of participants

>20

### Chronological Age

0-3 years

3-6 years

6-12 years

12-18 years

### Development Age

0-3 years

3-6 years

6-12 years

12-18 years

### LUDI Categories of disabilities

Physical impairments:

Severe

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

#### Explanation

Visual instruction with written language

Visual instruction with pictures or drawings

#### Involvement

Adult: therapist/educator/researcher

Parent or significant others

Peer with disabilities

Peer without disabilities

#### Role

Providing instruction

## Evaluation of objectives and outcome measures

### Description of outcome measure(s)

Feedback from client/parents/professionals

### Information about availability of outcome measure: publisher, website, contact person

Outcome measures:

<http://www.thingiverse.com/ceapt/designs>

<http://www.thingiverse.com/ceapt/analytics/>  
"View your analytics"

### Summary of achieved effects

<http://www.thingiverse.com/ceapt/designs>

- 36 followers
- 14 following
- 20 designs
- 6 collections
- 88 likes

### References to the intervention or research project

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### Website

<http://www.ceapat.es>

### Keywords

Assistive products, buttons, print design 3d, adapted toys.