



BRUNO ORO

PUBLICATIONS

- **Bruno Oro**, Tong Yang and Rosangela Tenorio. **Gansu Studio: 'Plug-in' school unit for rural China.**
- **Bruno Oro**, Patrick Pradel, Xu Sun and Wang Nan. **A Preliminary Comparison of Desk and Panel Critique Settings in The Design Studio.** International Conference on Engineering and Product Design Education 2015, Loughborough University, Loughborough/ UK
- **Bruno Oro.** – Dilus – Electronic product to assist social interaction, entertainment and continuity of school activities thought distance. **DESIGNING FOR CHILDREN WITH FOCUS PLAY AND LEARN 2010.** Mumbai/ INDIA.

AWARDS

- INTERNATIONAL DESIGN AWARD, WINNER, 2008
- INTERNATIONAL DESIGN AWARD, HONORABLE MENTION, 2010
- INTERNATIONAL DESIGN AWARD, HONORABLE MENTION, 2011
- INTERNATIONAL DESIGN AWARD, HONORABLE MENTION, 2012
- INTERNATIONAL DESIGN EXCELLENCE AWARDS, SHORTLISTED, 2014
- A'DESIGN AWARD AND COMPETITION, WINNER, 2014
- GERMAN COUNCIL OF PRODUCT DESIGN, NOMINEE, 2014
- DESIGN AND DESIGN INTERNATIONAL AWARD, WINNER, 2014
- GERMAN DESIGN AWARD, NOMINEE, 2015

OTHER ONGOING PROJECTS

- **Enhancing User Experience in AFOs for Children**
- **Exploring the Semantics of Assistive Technology**
- **Designing Toys for Disabled Children to Facilitate Rehabilitation**

INDUSTRIAL DESIGN
Assistant Professor

RECENT AND ONGOING RESEARCH ACTIVITIES

DESIGNING FOR CHILDREN WITH DISABILITIES



Oro's current research involves creating toys and products for children with cerebral palsy. For many kids with the diagnosis, frequent doctor visits to get fitted for orthotics can be uncomfortable, overwhelming, and traumatizing. "Happy Paws" is a project with a teddy bear with orthotics designed to look like the orthotics its child owner has. Hape Toys, a globally renowned manufacturer of wooden toys, has contributed \$23,000 to fund research for this project. The study investigates how industrial design, particularly in the realm of toys, impacts the rehabilitation of disabled children.

Other components of this project include a children's book and designing healthcare spaces with disabled children in mind. The book details experiences of disabled kids with a goal to help them quickly gain comfortability with their assistive products. Developing customized interior design would study how surroundings may impact how a child adapts to their new products as well.

Every object we interact with on a daily basis is the result of a design process. And for industrial designers, those little details really matter. What will it look like? Can it be made? And most importantly, does it make the operators life easier? For assistant professor of industrial design Bruno Oro, user experience has been at the crux of his research and work. Oro has worked and taught in India, China, Spain, Brazil and Canada. His areas of focus include interactive design, design methods, universal design for learning, design for disability and healthcare design.

DESIGN FOR ALL COMMUNITIES

Before joining the College of Design at Iowa State University, Oro was on the team who developed the "Gansu Studio: 'Plug-in' School Unit for Rural China" project. The community outreach plan was created during his time as a program director at the University of Nottingham Ningbo China campus. The project was developed over the course of two years (2014–16) and proposed a complimentary approach of education to improve quality of learning in primary schools in rural areas. Working closely with the Hegan Primary School, Hegan Town, Huining County, Baying Prefecture, and the Gansu Province in western China – Oro and his team set out to create the first net positive energy rural school building in the country. Their design also estimated 22 tons of water per year would be saved.



Hegan Primary School serves as an impromptu boarding school due to many parents in the community traveling to Beijing and Shanghai to work construction jobs over extended periods of time. The project explored why students in the region weren't graduating and why their test scores fell well below the national curriculum standards. As teaching delivery has been identified as the key to improving education in rural areas, the University of Nottingham Ningbo China developed a proposed curriculum that would include training the primary school teachers in Gansu. After spending time on-site, Oro and his team discovered these teachers had not been formally trained in lessons they were leading, and they were instructing a high number of students in subjects outside their scope of knowledge.

The community outreach project proposal aimed to engage higher education institutions and primary education institutions to exchange resources and was used as a tool for development and environmental awareness. Additionally, the program looked to increase the cognitive abilities of children in the region to increase their chances of graduating and being prepared to go to a university. They would do this by implementing a creative arts and technologies curriculum that promoted creativity which encourages student to understand what they are seeing and learning rather than memorizing it.

