

diplomado en desarrollo de productos sostenibles

Universidad de Nariño | design department
bachelor degree projects



overview

Product development is a differentiating factor in the most demanding, competitive and sectorized markets. New contexts have led to the need for design professionals capable of developing products according to human needs and problems. Environmental awareness is an issue inserted in every point of view due to the visible change in our planet, the decrease of its resources and excessive consumption.

content

- Innovation
- Concept development
- Eco-design
- Ideación
- Creative Problem Solving
- Product development
- Environmental dimension
- Product validation strategies

structure

Block 1 | Definition

Design problem definition, based on research and information gathering, understanding of market trends and the identification of problems and needs in the immediate context.

Block 2 | Ideation

Implementation of innovation tools and definition of the design idea from creative problem solving tools.

Block 3

Production / Validation

Low / medium / high resolution prototyping

Tools for product validation / user test

Cross block 1

ECO-DESIGN

Cross block 2

PROJECT

11 final projects developed between August and November 2021, in remote mode due to the Covid-19 pandemic, corresponding to the first cohort of the *diplomado* course.

projects

Pablo Borchers Invited professor

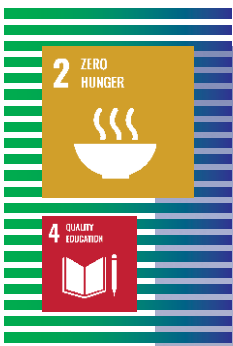
Máster en diseño sostenible de producto: innovación y gestión
Istituto Europeo di Design IED | Universidad de Barcelona | España
Diseñador Industrial Universidad de Nariño

José Dueñas Invited professor

Especialista en biodiseño y producto mecatrónico Universidad de Buenos Aires
Especialista en diseño y desarrollo de producto Universidad Nacional de Colombia
Diseñador Industrial Universidad de Nariño

Danilo Calvache Associate Professor

Doctor en Diseño Universidad de Palermo Buenos Aires
Master in Design Domus Academy
Especialista en Pedagogía de la Creatividad Universidad de Nariño
Diseñador Industrial Pontificia Universidad Javeriana



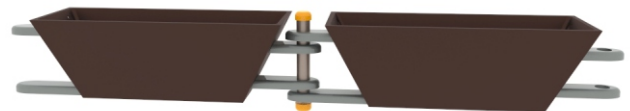
Ziembra.

Self-farming: initiative of educational, social and economic development for low-income families through public schools in San Juan de Pasto.

Authors: Paola Santacruz / Juan Sebastián Parra

A design kit to stimulate children's approach to self-farming techniques from school to home.

more info: <https://drive.google.com/file/d/1DdcWqT9d47dLiZik0JQOo1gGxRTtKylu/view?usp=sharing>



Raíz.

Crops with a purpose.

Authors: *Karen Rosales / Andrés Castro*

A set of products aimed to enhance and improve countryside farming maximizing the use of small areas.

more info: <https://drive.google.com/file/d/1dgLKhmnuUfNXSEK13V6ksNOHLxWvDpF3/view?usp=sharing>



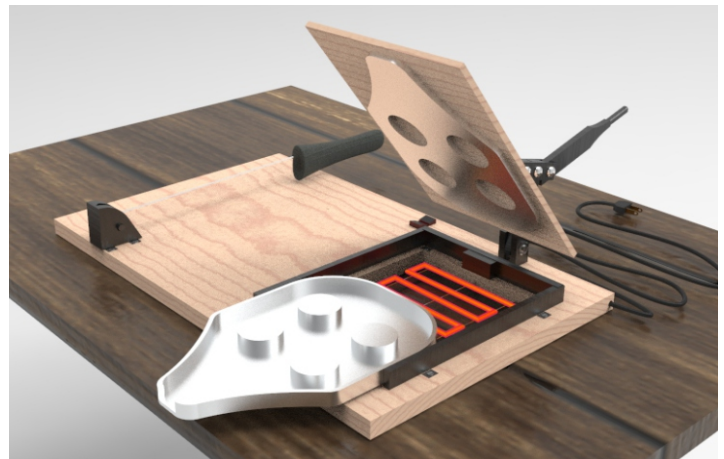
MOD.

Circular system for the collection, separation, transformation and commercialization of products from solid usable waste for the social and economic benefit of the recycling families of San Juan de Pasto.

Authors: Sara Veloza / Karen Apraez

Modular container wall kit produced from plastic bottle waste collected by recycle-collecting families.

more info: <https://drive.google.com/file/d/1OZtqudy9nvzoFNRmfpguSgex1rVs8XnA/view?usp=sharing>

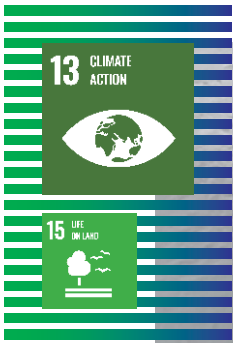


Transformation system for re use of waste plastics from agrochemicals used in coffee production in La Unión, Nariño.

Authors: Camila Rosas / Alejandro Ortiz

Low cost machine to repurpose agrochemical bottles into coffee growing tools.

more info: https://drive.google.com/drive/folders/1ZqcYuVe8m1yGWhA96nZ_2eXiS8gu0xwW?usp=sharing



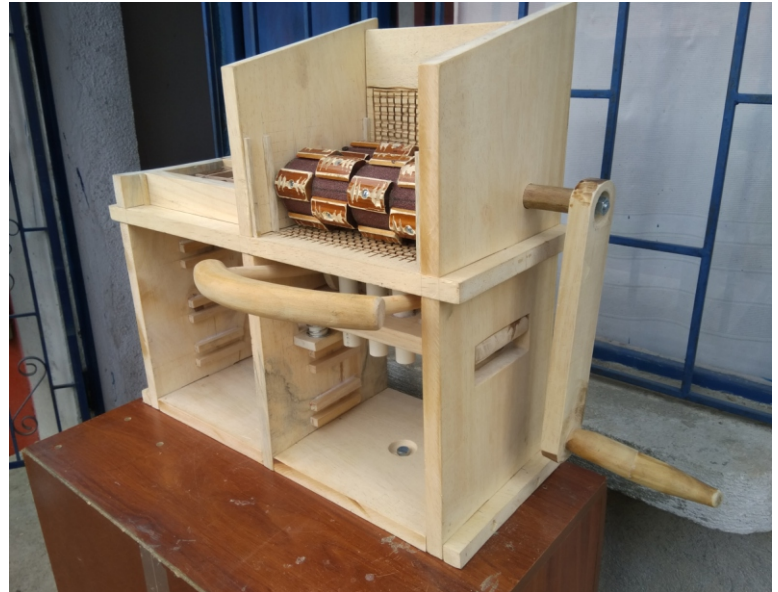
BIO+.

Actions to minimize deforestation impact generated by carbonization in El Encano, Pasto (Nariño).

Authors: Naslhy Palacios / Lizeth Chamorro

Collection of biomass generated from agricultural residues such as onion and dried coffee pulp, to replace coal and firewood used for home heating and food cooking.

more info: <https://drive.google.com/file/d/1AJadJuTCpU2h6i6gKTTvWOINb65dZnBh/view?usp=sharing>



Sior.

Functional organic fertilizer compaction system for corn, potato and vegetable crops in Genoy, Nariño.

Authors: Luis Muñoz / Camila Vallejo Zapata

Mechanic device that allows transforming crop waste into fertilizer bars.

more info: <https://drive.google.com/file/d/17j3bfVguIWdQCrrAckJPXuZe4FBIY5ID/view?usp=sharing>

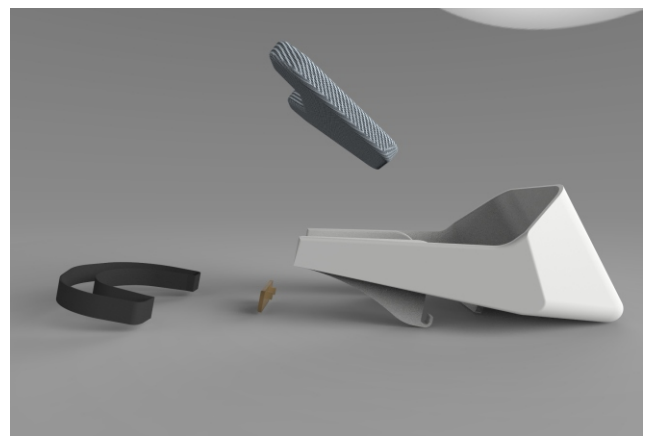
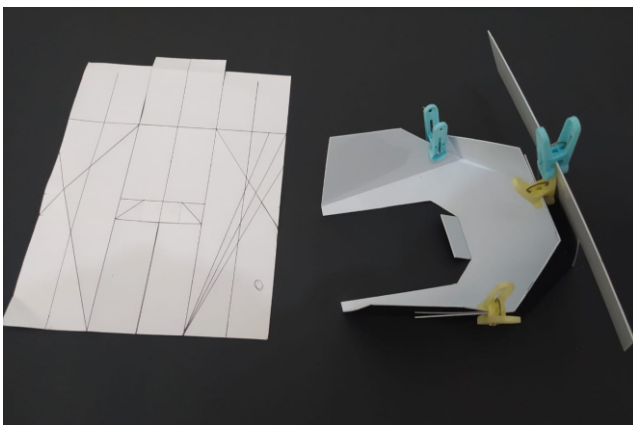
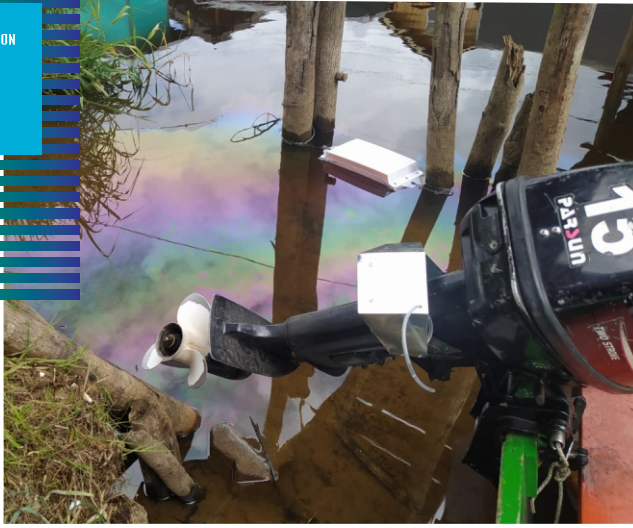


Clean Water.

Quality improvement by design of water consumed by the inhabitants of the El Rosario village, Jamondino district, Pasto.
Authors: Alexander Bolaños / Leidy Tapia

Home drinking water filter made with supplies available at any hardware store.

more info: <https://drive.google.com/file/d/1kaaPFWHIAORVm7Xaq6ubRG4Hc2Y5pQL/view?usp=sharing>



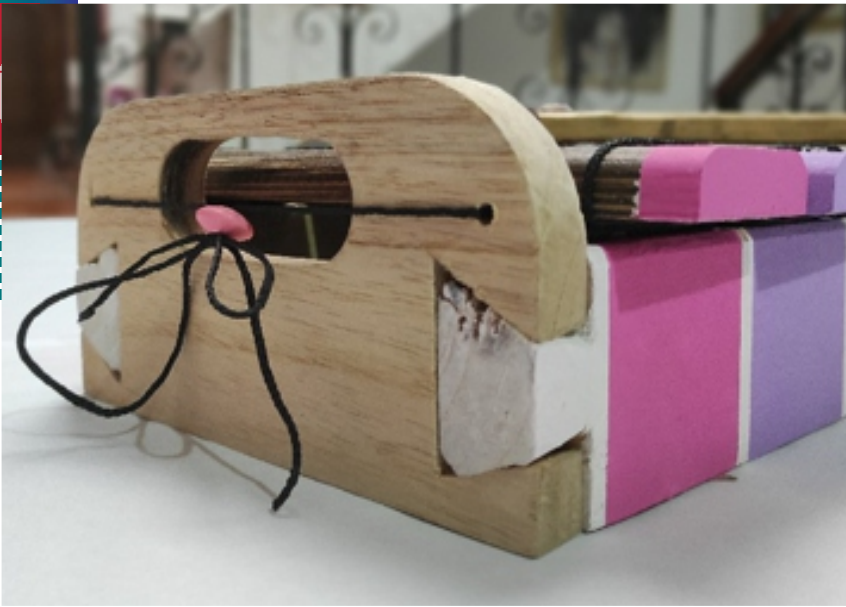
Bi Filtro.

Hydrocarbons collection system for Lake Guamuez pier in El Encano, Nariño.

Authors: Jaison Martinez / Jimmy Burbano

Filters for collection of gas oil waste generated directly from boat engines and in surface water.

more info: <https://drive.google.com/file/d/1CuRdvZEVNDhXk9iHbGfM4-h4LpeEu6xr/view?usp=sharing>

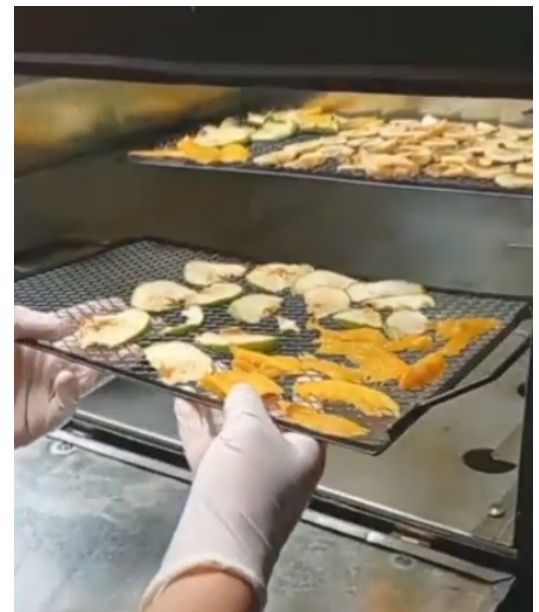
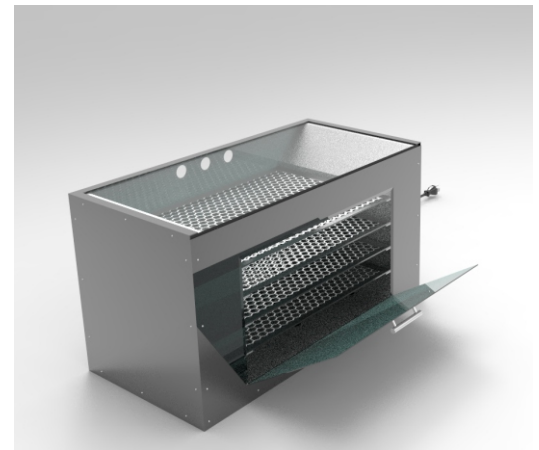


Latir Pacífico.

Traditional music learning instrument.
Authors: Erik Sánchez / Mario Segura

Children's assembly kit to build and play a *marimba*, a traditional xylophone from the Colombian Pacific coast.

more info: https://drive.google.com/file/d/1tazQJw5zQS16lwcNIBB-xl__B3llsO5N/view?usp=sharing



Fruvec.

Alternative use of organic waste in the El Tejar market square, San Juan de Pasto.

Authors: María Fernanda Coral / Amanda Lucía Mora

Hybrid dehydrator for the use of fruits and vegetables discarded due to their appearance.

more info: <https://drive.google.com/file/d/1TXComBm1asfMpdll0EwCNyF-Xi3cwZ6S/view?usp=sharing>



Green Hive.

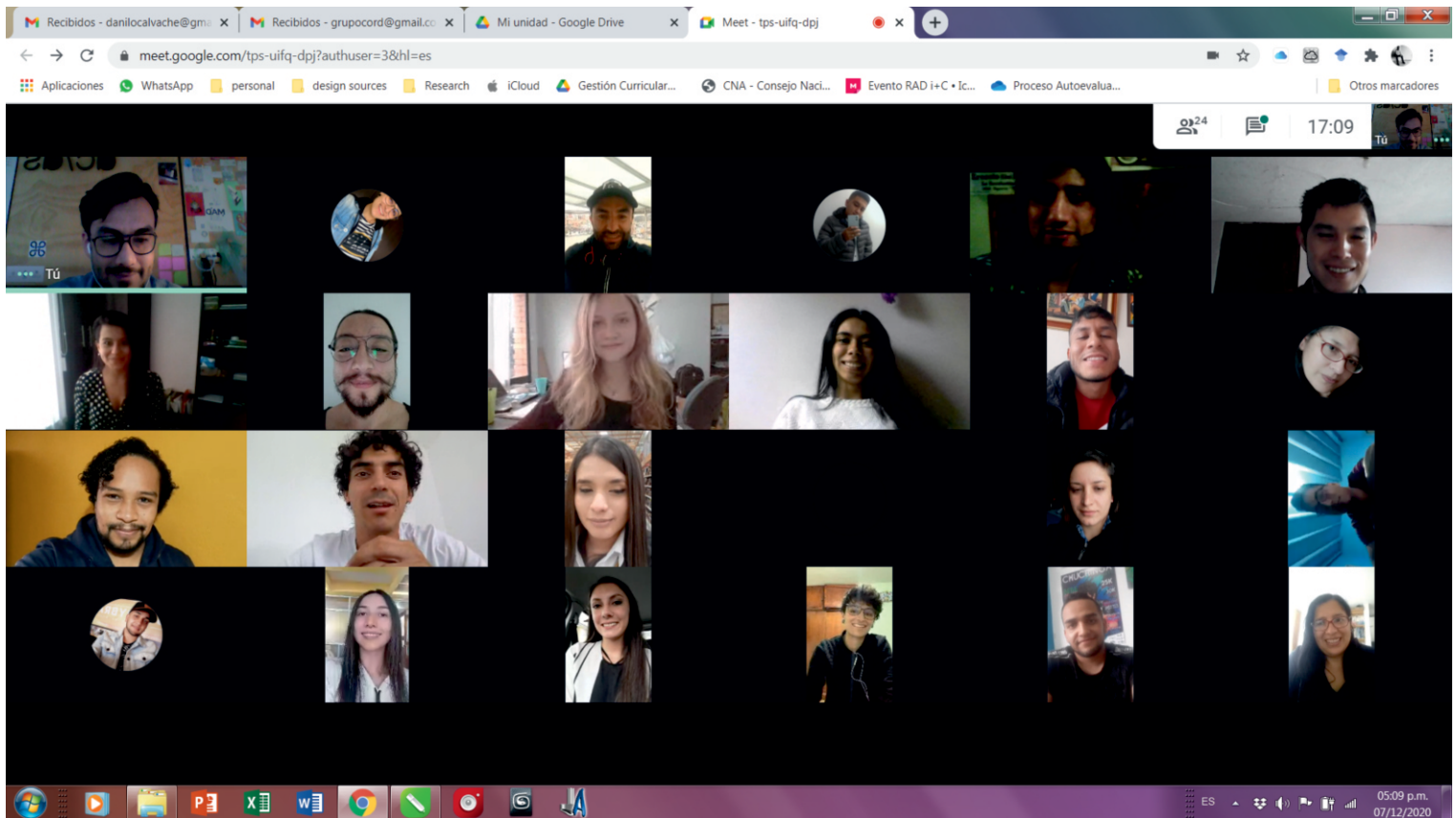
Thermal and environmental system for beehives in San Juan de Pasto.

Authors: Gabriela Moreano / Alejandra Tovar

Device for beehives passive heating and local feeding that seeks to reduce the death of bees caused by climate change.

more info: https://drive.google.com/file/d/1skXrq2010y1JCretVtMgzfBk_LN5GruV/view?usp=sharing

22 new designers, achieved their bachelor degree by attending the *Diplomado en desarrollo de productos sostenibles* in distance design education conditions facing the Covid-19 epidemic.



Karen Apráez
Alexander Bolaños
Jimmy Burbano
Andrés Castro
María Fernanda Coral
Lizeth Chamorro
Jaison Martínez
Amanda Lucía Mora
Gabriela Moreano
Luis Muñoz
Alejandro Ortiz

Naslhy Palacios
Juan Sebastián Parra
Karen Rosales
Camila Rosas
Erik Sánchez
Paola Santacruz
Mario Segura
Leidy Tapia
Alejandra Tovar
Camila Vallejo Zapata
Sara Veloza

