PORTFOLIO

2 Kal

DAVID SERNA

INDEX

WHO AM I PROYECTS SEACLOPS KUNA XIX **GRAND PRIX PROTOTYPING TECHNIQUES**

WHO AM I

I'm David Serna, I'm currently studying product design and working as a Fab-Lab fellow at ESNE University. I started with product design with the dream of being a car designer, but during my studies my taste for more everyday products and, when well-designed, unnoticed, especially home electronics, also grew.

In my work at ESNE as a Fab-Lab intern, I learned in depth how to use and maintain a wide range of manufacturing and prototyping machines. A good range of 3D printers, a laser cutter and engraver and two CNC milling machines.



ESEL

Esel is a shopping trolley designed for the elderly with an easy access to the bags.









SEACLOPS

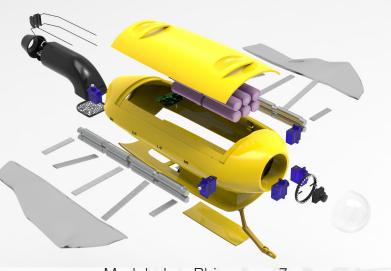
Seaclops is an autonomous drone to explore marine ecosystems.



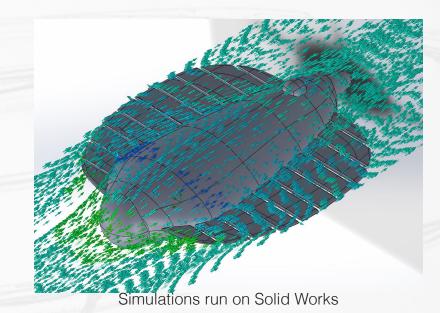


Renders made on Unreal engine 5



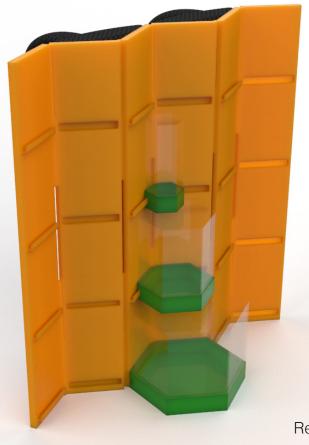


Modeled on Rhinoceros 7



KUNA

This project was carried out in collaboration with the Spanish organization Socentlabo and students from the Pratt Institute in New York, the EAPD University in the Dominican Republic, and the ESNE University in Spain. The project aimed to create products for emergency occasions in developing countries.



Renders made on Keyshot 11

Our solution to this problem was to design individual stackable greenhouses to safely hold shoots at various stages of growth. We also design the best ways to transport them on foot.

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GRAND PRIX

Car scale prototype to test different manufacturing techniques and materials.





The mockup can be opened to view and modify the internal parts.



The bodywork is created from carbon fiber, with the molds being 3D printed.

The rims are created with resin in silicone molds.



Tires are created from silicone and shredded tires.

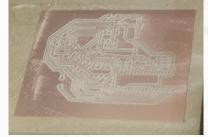


PROTOTYPING TECHNIQUES

As a student at ESNE and fellow of its Fablab I have been able to try various prototyping and manufacturing techniques.

CNC MILLING MACHINE









LASER CUTTER







3D PRINTING









THERMOFORMER



VINYL CUTTER

Roland



CARBON FIBER





MOLDS







PAPER PROTOTYPING