



M.Sc. Fernando Vallejo-Siller

Industrial Designer

Selected projects and works (1986-2004)

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M.Sc. Fernando Vallejo-Siller

Industrial Designer

Projects at Universidad Autónoma de Guadalajara

Guadalajara, México 1986-1990



Prototypes

- Baby walker
- Corrugated kraft paper stool



Design Projects

- Supine stander
- Food processor
- CO2 powered airbrushes



Drawings

- Pastels
- Oil markers



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Guadalajara, México 1986-1990



Design Projects

- Pneumatic lift & dolly
- Petrol pump



Paper models





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Guadalajara, México 1986-1990



Back-light drawing surface and ergonomic chair.



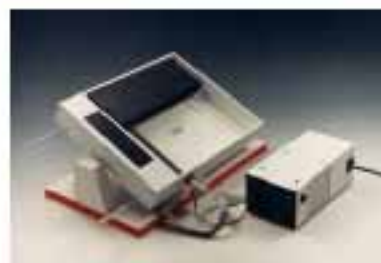
Bachelor's thesis

Agricultural tractor for work on inclined surfaces

There are many fatal accidents each year when tractors overturn when used on inclined surfaces.

The goal of this project was to improve the stability of agricultural tractors. A circuit detects the horizontal angle of the tractor and controls a counterweight to give extra balance.

This project received a honor mention from the National Chamber of Commerce of Guadalajara at their annual thesis awards in 1992.





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Projects at Universität Gesamthochschule Essen

Essen, Germany 1993-1996



Information point

This electronic information point for ADAC provides german motorists with maps and road information.



Welding mask

Using a similar technology to virtual reality helmets, this welding mask provides a 3D live image taken by two cameras and adjusted to prevent sudden blind.



World bicycle

This project was part of an international competition by Owens Corning. The challenge was to create a "world bicycle". My design provides a shield against rain, and room to carry objects like boxes or grocery bags without compromising the stability of the vehicle.





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Essen, Germany 1993-1996



Formal study on computers

The goal of this design study was to explore aesthetic symbolism on computers. Using the same hardware for all models, I proposed a symbolic character for each use categories:

- Executive
- Secretarial



- Games and internet
- Study



M.Sc. Thesis

Integrated alarm system

The alarm system combines emergency light, smoke detector, speed dial with telephone for 5 emergency numbers, sound alarm and panic button.





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Industrial Designer
Photographic airbrush retouch
 1990-1993

Before



After



Pictures for catalogues



AT&T factory in Guadalajara



Before



After

This 1st prize winner picture was taken by Peggy Vallejo. I airbrushed the sky and adjusted the horizon and moon to have a better composition.



Before



After



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 Freelance advertising works
 1990-1999



Advertising

- Illustrations and airbrush retouch
- Sales point
- Labels and etiquettes
- Exhibition fair booth
- Promotional watches
- Calendar
- Logos and stationery

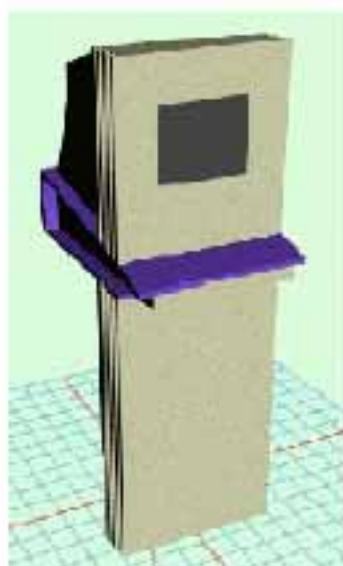
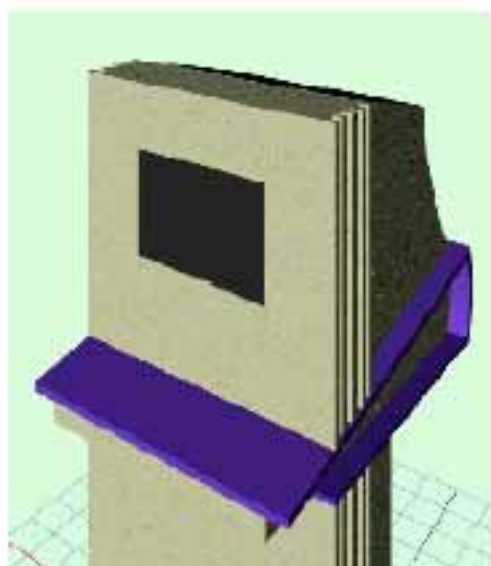




IBM / Los Colomos



IBM was to donate this information kiosks to the city park "Los Colomos" in 1996.





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Design projects

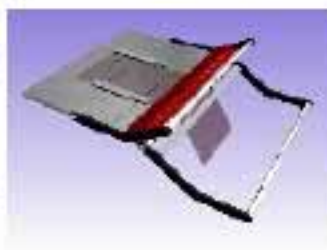
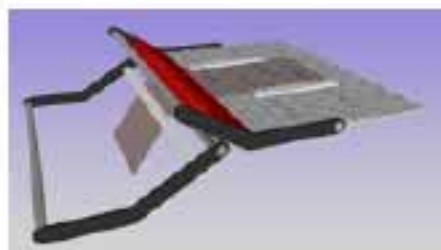
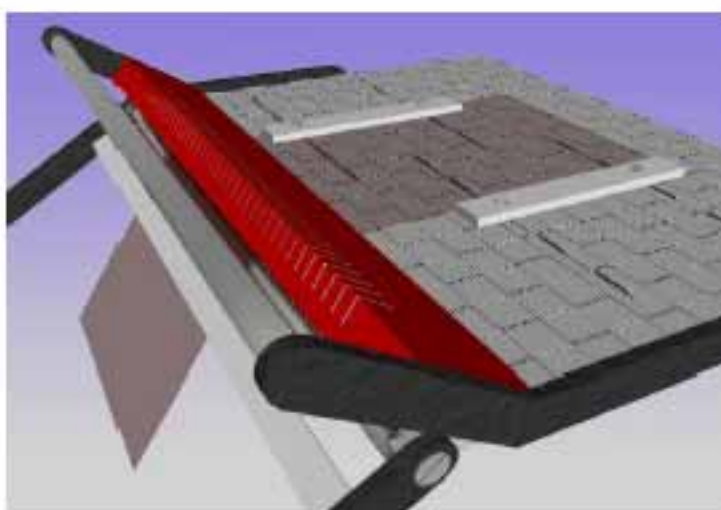
2002-2004



Yacht's chair pedestals

A New Zealand manufacturer of yacht accessories asked me to develop this carbon fiber pedestals in 2004.

Laminate plastics bender





Study desks



Tubular chairs





Office furniture and exhibition stands.



Cardboard products



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Student's works at ITESM: Design Studio 4

2002-2003

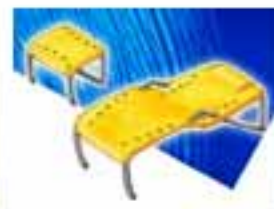


**TECNOLÓGICO
DE MONTERREY.**



Aquatic therapy bed

Thanks to the "departamento de vinculación académica" my students had the opportunity to design equipment like this aquatic bed for William's therapy for DIF Nuevo León.



Paulina de Zamacona, Alberto Montoya



Daniela Dávalos, Cecilia Rodríguez



Physiotherapy bed

Also for DIF's physiotherapy department, this bed considered many ergonomic features to enhance the patient's and the therapist's comfort.



Kendall exercise unit

RETOS helps young adults with DS to get into a productive life. This Kendall exercise unit is used for hands and fingers therapy.



Noemí Treviño, Miguel Espinoza, Ertain Rodríguez



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Student's works at ITESM : Design Studio 4

2002-2003



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Prone stander

This parapodium for children with cerebral palsy won a scholarship to put it into production at the business incubators at ITESM.



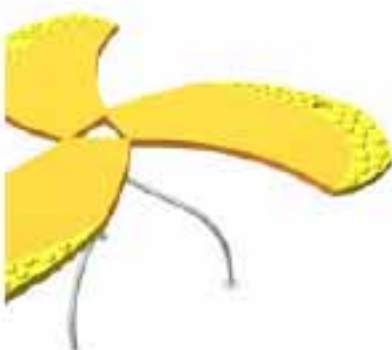
Barbara Magaña, Sichein Rizo, Manuel Reyes



Gait trainer

Gait trainers for children with cerebral palsy have 5 or 6 adjustment points that have to be modified for each child. My students simplified the mechanism to only 2.

Claudia Ramirez, Jessica González, David Vargas



Therapy activities table

This therapy table was the complement for the parapodium. The rugged surface provides tactile stimuli and is easier to maintain than the old tables at DIF.



Isabel Heras, Leonor Monter de Oca, Ileana Téllez



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Student's works at ITESM : Design Studio 4

2002-2003



**TECNOLÓGICO
DE MONTERREY.**



MD chair

This project was an international collaboration with Fontys University (Holland) and Lehigh (USA) to develop an electric wheel chair for children with Muscular Dystrophy.

Cecilia Padilla, Sandra Rosales,
Arturo Sáenz, Adam Zeller



Outdoor exercise playgrounds

Before building their prototypes, my students tested their ideas with PVC simulators.

Nuevo Amanecer has a large indoor therapy gym but no outdoor equipment. Four teams developed a series of equipment: a bridge, walking tracks, climber and monkey bars.



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Introduction to Ergonomics student's projects at UNITEC 2004



Podium design

After developing their own anthropometric charts, my students evaluated their design using ergonomic software.



MALE SAMPLE (11 subjects)

Parameter	1	2	3	4	5	6	7	8	9	10	11	Mean	SD
A Height	170.0	175.0	178.0	180.0	182.0	185.0	188.0	190.0	192.0	195.0	198.0	184.5	10.5
B Elbow to Finger Tip, Outstretched	55.0	58.0	60.0	62.0	65.0	68.0	70.0	72.0	75.0	78.0	80.0	66.5	5.5
C Elbow to Wrist	35.0	38.0	40.0	42.0	45.0	48.0	50.0	52.0	55.0	58.0	60.0	45.5	3.5
D Arm Span	165.0	170.0	175.0	180.0	185.0	190.0	195.0	200.0	205.0	210.0	215.0	185.5	15.5
E Shoulder to Top of Head	45.0	48.0	50.0	52.0	55.0	58.0	60.0	62.0	65.0	68.0	70.0	56.5	3.5
F Elbow to Floor, Standing	55.0	58.0	60.0	62.0	65.0	68.0	70.0	72.0	75.0	78.0	80.0	66.5	5.5
G Ankle to Floor, Standing	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	18.5	4.5
H Hip to Floor, Seated	45.0	48.0	50.0	52.0	55.0	58.0	60.0	62.0	65.0	68.0	70.0	56.5	3.5
I Foot to Knee	55.0	58.0	60.0	62.0	65.0	68.0	70.0	72.0	75.0	78.0	80.0	66.5	5.5
J Knee to Ankle	45.0	48.0	50.0	52.0	55.0	58.0	60.0	62.0	65.0	68.0	70.0	56.5	3.5
K Elbow to Ankle	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	18.5	4.5
L Elbow to Ankle, Seated	45.0	48.0	50.0	52.0	55.0	58.0	60.0	62.0	65.0	68.0	70.0	56.5	3.5
M Elbow to Ankle, Seated	45.0	48.0	50.0	52.0	55.0	58.0	60.0	62.0	65.0	68.0	70.0	56.5	3.5

