SANTIAGO BARBA

MECHATRONICS ENGINEER - 04/21/1995

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Chihuahua, Mexico

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Experience

Williams Furnace Company (Colton, CA) **-** December, 2023 - Present

<u>CAD Engineer - contractor: PXT Manufacturing</u>

- Designing 3D models for fan coil units and valve packages using SolidWorks.

- Creating sheet metal models for fan coil components.

- Developing 3D models for furnace chambers.

- Preparing mechanical drawings for fan coil sheet metal components, valve packages, and furnace chambers.

- Creating assemblies for fan coil and furnace equipments.

- Updating old documentation and drawings to meet new standards.

KUKA Assembly and Test (Fenton, MI) - December, 2020 - December, 2023

<u>Technical Writer & Trainer - contractor: PXT Manufacturing</u>

Developed 50+ Operation and Service Manuals:

- Used NX and Solid Works to create exploded views of the station, Identify main components of the equipment, and explain their function in the production process.

- Collaborated with the controls team to create step-by-step procedures for interacting with the equipment through the HMI.

- Developed detailed replacement instructions for wear-prone components, as well as calibration and alignment procedures, including:

  - Press force verification.
  - LVDT pressing distance calibration.
  - Liquid dispensing calibration (oil, lubricant, glue).
  - Press alignment.

- Interpretated pneumatic, hydraulic, and electrical diagrams to ensure accuracy with physical circuits.

- Creation of technical documentation in web format, using HTML & CSS.

- Conducted on-site training on calibration procedures at the Ford Transmission Plant in Irapuato, Mexico.

Selected Projects:

- GRX Transmission - General Motors Silao
- DCT - General Motors St. Catharines
- BEV3 - General Motors Ramos Arizpe
- KH1T & KH5T - Nissan Tennessee
- eTrans - Ford Irapuato
- GW - Navistar Alabama

Visteon (Chihuauha, Mexico) -   January, 2018 - March, 2020

<u>Automation Engineer</u>

- Plastics Area Automatic Report Creation - Developed software that calculates the Overall Equipment Efficiency (OEE) by acquiring and interpreting multiple signals from Injection Molding Machines. The software consists of an interface that allows the operator to enter the scrap and lunchtime directly into the software, avoiding using paper and decreasing the possibility of scrap due to particle contamination.

- Developed both LabVIEW and robot code (Robot Studio) for multiple router robot projects (ABB IRB140 & IRB1600).

- Tooling design Using NX: Grippers, Part Nests, Fixtures, Poka-yoke.

- Pneumatic / Electrical circuits design and implementation.

- Support and Troubleshooting for Ford P552/P702 Programs Final Assembly Automated Cells:
  - Robot code debugging.
  - Re-teaching positions.
  - Re-tooling of mechanical components.

- Technical Writing — Created safety, operating, and maintenance instructions for multiple Router Robot Automated Cells.

Teleflex (Chihuahua, Mexico) - August, 2017 - December, 2017

<u>Engineering Intern</u>

worked in the plastics extrusion area measuring cross-sectional samples of catheters to create statistical reports for obtaining validation and certification of the production line.

Aurom (Chihuahua, Mexico) **-** February, 2017 - July, 2017

<u>Engineering Intern</u>

Learned ABB and KUKA jogging and programming basics.

Education

2013 - 2017
Universidad La Salle Chihuahua

Mechatronics Engineer

Languages

Spanish - Native Language

English -   C2 (EF SET 50 2023)

efset.org/cert/N4ud9n

More info:

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Skills

- Solid Works (CSWA)
- NX
- ABB Robotics
- LabVIEW
- Pneumatic and Electrical circuits
- Technical Writing
- HTML & CSS

References

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PXT Manufacturing / Technical Writer

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Visteon / Automation Engineer

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