ROBERTO CORIA

Recently graduated Robotics Engineer with proficiency in programming (Python, Java, JavaScript), CAD design (SolidWorks), and automation with Siemens PLCs. Possessing hands-on experience with Kuka and Mitsubishi robotic arms, artificial vision development, and Machine Learning. This is supported by participation in robotics tournaments and the creation of a functional robotic arm prototype from scratch.

CONTACT

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PROFESSIONAL EXPERIENCE

Reyma del Sureste — Present

Industrial mechanic

- I implemented a leak detection system in molds and mill shafts that allowed for inspection without disassembly, by injecting pressurized water to identify defects..
- This improvement reduced installation and pre-inspection time by an average of 3 hours, optimizing the production line's operational efficiency.
- Responsible for preventive and corrective maintenance of industrial machinery, including repairing molds for formers, packers, mills, and installing electric motors.

WINPRO — 2020 - 2024

Computer Technician

- I performed accurate diagnostics of hardware and software failures, identifying the root cause of errors to apply effective corrective maintenance.
- I performed reinstallations and configurations of operating systems, including Linux and Windows, ensuring optimal performance and customer satisfaction.

PROJECTS

UPY — 2024

Multitasking Robot

- Development of a multi-task robot using Raspberry Pi 4 for data communication to an atmega328p via RosSerial.
- Implemented a dual vision system with two cameras, featuring remote viewing via VNC.
- Developed a dual control system: a manual mode using an Xbox One Series X controller, and an automatic Machine Learning system (trained with YOLO) for detecting people, traffic signs, and crosswalks.

UPY — 2023

Classification and Collection System with Artificial Vision

- Development of a program for three Siemens S7-1200 PLCs interconnected via PROFINET, managing a parts sorting and collection system.
- Implementation of Cartesian arm sections for parts collection, a conveyor belt for filtering by type (metal or plastic) and validation, and a Mitsubishi robotic arm for final positioning.
- Programming and configuration carried out in TIA Portal and integration of Insight Vision for image processing.

UMDI-SISAL - UNAM — 2023

Automated Aquatic Feeding and Monitoring System

- Design and development of an automated feeding system for aquatic organisms (fish and cetaceans).
- Integrated a water quality verification system to monitor pH, temperature, and ammonia levels.
- Use of an ESP32 and the Adafruit.io (IoT) graphical interface to monitor water parameters in an isolated fish pond.

EDUCATION

Universidad politécnica de Yucatán

Computational robotics engineering — 2021 - 2025

- GPA: 9.5

CERTIFICATIONS

English Certification ITEP Plus (B2) December 2024

PROFESSIONAL AND PERSONAL SKILLS

Software: Tia Portal (basic), Solid Works (intermediate), ROS (intermediate), Labview (intermediate).
Programming languages: Python (intermediate), Java (basic), Javascript (intermediate).
Complex problem solving, technical communication, and agile learning.