

# KELVIN JARAMILLO

## PROFILE

Mechanical Engineer with good experience in electronics and programming. Strong foundation in with MATLAB, Simulink, python and java. Good understanding of sensors, motor drivers and computer vision. I offer a good understanding on how the mechanical, electrical and software domain must be synchronized in time to form part of a system

## INFO

Address: Stationsplein 13, 7551 CN Hengelo  
Marital status: single  
Nationality: Ecuadorean  
Date of birth: 02-June-1997

## CONTACT

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## INTEREST

- ROS (Robotic Operating System)
- Brushless motors (controllers and drivers)
- Dynamic/Mechatronic systems
- Design and prototype
- Logic coding for robotic systems
- Embedded systems

## EDUCATION

### University of Twente

2019-2021/07  
Bachelor Mechanical Engineering  
**Holland International Study Centre**  
2019/01 – 2019/06  
Foundation Year

### SENESCYT Scholar

2018  
Obtained a 960/1000 in the standard university entry test, which gave me the chance for a Full scholarship for my bachelor

## PROJECTS EXPERIENCE

### Mirror-manipulator

Feedforward control-Precision mechatronic system with an elastic guidance (leaf springs)-SOLIDWORKS for designing and Simulink for developing controllers

### Robot to travel through maze

PID controllers - Distance sensors for self-guidance

### Server-client Collecto board game (JAVA)

Client-Server Socket communication ◦ Given SERVER and protocol to connect-UML diagrams for designing program

### Collecto board game with PYTHON and OpenCV

MinMax algorithm-Game developed with PyGame library-OpenCV to interact with game-multithreading used for synchronization

### Robotic serial manipulator for SPE

2 DOF robotic manipulator with electromagnetic end effector. User interface with Unity to pick objects to be moved from one location to another. I made the controllers, design, prototype, software for communication and trajectory generation.

### Cable driven robot for SPE

The 2 DOF parallel robot with electromagnetic end effector. To move objects over the table more efficiently than the serial type of robot above.

**NOTE:** for more information and projects please check my website.

## SKILLS

**Programming:** Good foundation and experience in: PYTHON/ JAVA/ MATLAB. Read and understand C#, JavaScript/html, C++ & C

**Modelling:** I have made multiple projects (simple and complex shapes) using SOLIDWORKS.

**Sensors/ Circuits and Electronics:** good understanding and experience of the electrical domain after a 10 week course with practical exercises for sensors (distance, force, capacitive, resistance, motor drivers) and 1<sup>st</sup> and 2<sup>nd</sup> order electric circuits (amplifiers and filters).

**Language:** Spanish(native), English(fluent) & (learning Dutch)