

# JeanPiere Demir

## Robotics Engineer

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Austrian

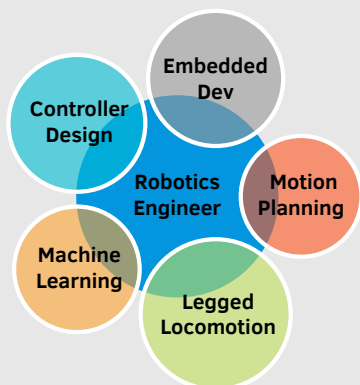
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Smashroom/Portfolio

## Technical Skills

### Overview



### Software Skills

ROS

Autodesk Tools

Matlab • Python

C • C++

## Education

### MSc., Electrical and Electronics Engineering (GPA: 3.5)

Specialization: Robotics  
Middle East Technical University  
2017 - | Ankara, Turkey

### BSc., Electrical and Electronics Engineering (GPA: 2.64)

Specialization: Power Electronics  
Middle East Technical University  
2013 - 2017 | Ankara, Turkey

## Experience

Sept 2017 - Jan 2019 **Electronics Engineer Specialist**  
Ankara

METU Design Factory

- Worked with Interdisciplinary Group and developed User Experience Analyzer for dishwashers via IoT based Sensors, embedded systems libraries using from C++ (Particle Photon)
- Used and Learned different manufacturing methods such as Laser Cutting, 3D Printing, 5-axes CNC Milling, Water Jet
- Attended several international events about rapid prototyping/manufacturing **Tools:** C, C++, Python, Autodesk Inventor/Fusion, Matlab/Simulink

July 2017 - Jan 2019 **Hardware Developer (Remote)**  
Munich

Robotcloud UG

- Developed PLC for Suction Gripper Data Measurement and arranging closed box environment lights for better Image Processing Results using libraries from C++ (Arduino)
- Developed GUI for Hospitals which use Robot arms for food serving the motion planner of the robot arm is Semantic Reasoning based. Libraries used from Python (kivy) **Tools:** C, C++, Python, ROS, Gazebo

Oct 2016 - May 2017 **Product Developer**  
Ankara

Earsis

- In a team of 4, developed Data Measurement System(DMS) for AC/DC Voltage-Current of Electrical Machines via TI F28335 and RPi and Developed Data Communication driver between RPi and TI F28335 libraries using from C/C++ TI libraries
- Developed DMS Data Measurement Part of the PCB via Altium **Tools:** C, C++, Altium, CCS

June 2016 - Sept 2016 **Research Trainee**  
Berlin

DAI-Labor

- Skeleton Tracking implemented to develop Activity Recognition algorithm libraries using from C++ (OpenCv, NiTe)
- Hidden Markov Model based Activity recognition algorithm developed for HRI application libraries using from Python and Matlab
- Developed algorithm is tested via Nao and comparison has been done with different algorithms **Tools:** Python, MatLab, C++, ROS

## Research

2017 - **MSc. Candidate, Graduate Research Assistant**  
Ankara

METU

- Thesis:** Data-Driven Stability Analysis for Rhythmic Underactuated Robots
- Proposed a performance metric for long-term stability of rhythmic underactuated robots and prepared an optimization algorithm which cost function is based on combination of this performance metric and Cost of Transport
  - Actuated Passive Walker is manufactured and this optimization algorithm will be tested for controller parameters optimization **Tools:** MatLab/Simulink, Mathematica, C++, MQTT, Autodesk Inventor

## Publications

JeanPiere Demir, and M. M. Ankarali, "Data-Driven Stability Analysis for Legged Locomotion" in 2018 TORK (Türkiye Robotik Bilim)