

Marco VESCOVO

VescoTronic

VescoTronic GmbH
Birmensdorferstrasse 525
CH-8055 Zürich

Mechatronics Engineer
Senior Development Engineer

Info@VescoTronic.ch
www.VescoTronic.ch
CHE-XXX.YYY.ZZZ MWST

Summary

I am a Multi-Disciplinary Engineer with 21 years of extensive experience in the field. My expertise spans across Mechatronics, Mechanical Engineering, Electrical and Electronic Engineering, Embedded Systems, and Test Engineering. I possess a unique blend of skills that allows me to approach complex engineering challenges from multiple perspectives.

With my comprehensive background, I can seamlessly integrate various engineering disciplines to create innovative solutions.

Stakeholders appreciate my clear communication. I pride myself on being detail-oriented while consistently meeting deadlines, ensuring that every project I undertake is completed to the highest standards without compromising on timeliness.



Experience

Mechanical Engineering: 14 years

Machine and Prototype Assembly and Commissioning

Electrical- and Embedded Engineering: 3 years

Development and Project Leading for Electrical- Embedded- and PLC- Systems

Test Engineering: 4 years

Prototype Assembly and Testing for Mechanical-, Electrical- and PLC- Systems

Skills

DOMAINS	<i>Mechatronics</i> <i>Mechanical Engineering</i> <i>Electrical Engineering</i> <i>Electronical Engineering</i> <i>Embedded Engineering</i> <i>Test Engineering</i>	
CERTIFICATIONS	<i>Experiment Supervisor – ABB Turgi – 2019</i>	
TOOLS		Level of Expirience
ERP	SAP Infor	Competent Competent
Modeling tools	Matlab Simulink LT Spice MultiSim	Beginner Beginner Competent Beginner
Microcontroller Technology / Embedded Systems	Microchip-PIC's Atmel-ATmega Altera Cyclon Arduino Raspberry Pi MP-Lab, MP-Lab X QuartusII IDE Arduino IDE	Proficient Beginner Beginner Competent Beginner Proficient Beginner Competent
PCB- /IC- Development	Altium Designer Target 3001 Eagle	Competent Proficient Beginner
Programming-languages	MP-ASM Ansi C / C18 Delphi C / C++ LabView Python Java Android App VHDL	Proficient Beginner Proficient Beginner Competent Beginner Beginner Beginner Beginner

More Tools		Level of Experience
PLC Technology	Fanuc Siemens S7, Siemens 840D Codesys, ST WinCC FOP, KOP	Competent Beginner Competent Beginner Competent
CAD / E-CAD	Inventor 2010 / 2017 SolidWorks 2013 SolidEdge Siemens NX 7.5 / NX 12 Catia V5 ecsCAD EPlan	Proficient Competent Competent Competent / Proficient Beginner Proficient Beginner
PDM	Vault TeamCenter	Beginner Competent

Education – Languages

Apprenticeship Technical College	<i>Mechanical Engineer / 1994 / BAMF Dübendorf Dipl. Techniker Mechatronik HF / 2011 / BZD Dietikon</i>
Swiss	<i>Mother tongue</i>
German	<i>Fluent</i>
English	<i>Fluent</i>
Italian	<i>Intermediate</i>
French	<i>Beginner</i>
Japanese	<i>Beginner</i>

Projects

MECHANICAL ENGINEERING / SIEMENS SCHWEIZ AG

03-2022 / 12-2022

(10 months)

GENERAL CONTEXT: SMART INFRASTRUCTURE SIEMENS SUPPORTS THE WAY WE ALL WANT TO LIVE - HAPPY, COMFORTABLE, SUSTAINABLE AND HARMONIOUS. IT SUPPORTS THE WAY INDUSTRY AND BUSINESS WANT TO BE - EFFICIENT, RESPONSIBLE AND SMART. TECHNOLOGY AND HUMAN INGENUITY COME TOGETHER TO ACT IN THE BEST INTERESTS OF OUR ENVIRONMENT AND CARE FOR OUR PLANET. WE MAKE THIS HAPPEN IN WAYS LARGE AND SMALL: THROUGH CONNECTED, CLOUD-BASED DIGITAL OFFERINGS AND SERVICES, AS COMPETENT AS PRODUCTS, COMPONENTS AND SYSTEMS. THROUGH SMART GRID CONTROL TO SMART STORAGE SOLUTIONS; FROM BUILDING AUTOMATION AND CONTROL SYSTEMS TO SWITCHES, VALVES AND SENSORS.

PROJECT'S DESCRIPTION: SUPPORT OF PRODUCT MAINTENANCE TEAM AS MECHANICAL ENGINEER

RESPONSIBILITIES AND COMPETENCES

- ▶ Mechanical Design and Changes in Siemens NX
- ▶ Data maintenance in the PDM system TeamCenter (revisions, material planning, parts list maintenance, release processes)
- ▶ Communicate product changes internally to factory, quality and purchasing
- ▶ Conduct technical agreements with global suppliers
- ▶ Review, evaluate and approve initial sample parts
- ▶ Work packages which come from the project manager, processed and completed independently
- ▶ Partially plan and organize smaller change projects
- ▶ Participate in internal PI planning (planning increment of 4 months). The work packages are discussed in the Scrum Team

TECHNICAL ENVIRONMENT	<i>Hardware Design: Siemens NX PDM-System: TeamCenter</i>
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(19 months)

GENERAL CONTEXT: MECOS IS A PIONEER OF DIGITALLY CONTROLLED MAGNETIC BEARING SYSTEMS AND THE LEADING SUPPLIER OF MAGNETIC BEARING TECHNOLOGY FOR INDUSTRIAL USE. AMB (ACTIVE MAGNETIC BEARINGS) ALLOW CONTACT-FREE LEVITATION, THUS ENABLING NEW APPLICATIONS.

PROJECT'S DESCRIPTION: DEVELOPMENT OF AN ACTIVE TEST SYSTEM FOR FREQUENCY CONVERTERS TO PROVE RELIABILITY AS A STEP OF PRODUCTION.

RESPONSIBILITIES AND COMPETENCES

- ↳ Mechanical Engineering
- ↳ Electrical Engineering
- ↳ Electronic Engineering
- ↳ Prototype Assembly
- ↳ Test Engineering

TECHNICAL ENVIRONMENT	<i>Concept-Planning: Word, Excel, yEd Hardware Design: SolidWorks Electrical Design: Elektroplanung PCB Design: Target 3001 Tools: Infor</i>
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(33 months)

GENERAL CONTEXT: ABB SYSTEM DRIVES IN TURGI SUPPLIES MEDIUM VOLTAGE VARIABLE SPEED DRIVES FOR A WIDE RANGE OF APPLICATIONS IN SEVERAL INDUSTRIES. I WORK AS A TEST ENGINEER FOR THE SUBSEA PROJECT.

PROJECT'S DESCRIPTION: DURUS IS A VARIABLE SPEED DRIVE WHICH CAN BE SUBMERGED TO THE SEABED DOWN TO 3000 METERS WATER DEPTH. BECAUSE MAINTENANCE OF SUCH A DRIVE IS ALMOST IMPOSSIBLE, IS HAS TO BE HIGHLY RELIABLE WITH SEVERAL REDUNDANCIES FOR CONTINUOUS OPERATION OF SEVERAL YEARS.

RESPONSIBILITIES AND COMPETENCES

- ▶ Developing and Executing Tests for
 - Medium Voltage Equipment
 - Control Hardware
 - Components
 - PCBA's
- ▶ Development and executing Tests in
 - High Pressure Environment
 - High Temperature Environment
- ▶ Performing
 - ESS-Tests
 - High Pressure Tolerance Tests
 - High Temperature Tolerance Tests
 - Liquid Tolerance Tests
 - Vibration Tolerance Tests
 - Analysis of P&ID Diagrams

TECHNICAL ENVIRONMENT	<p><i>Hardware Design: SolidEdge</i></p> <p><i>Electrical Design: escCAD</i></p> <p><i>PCB Design: Target 3001</i></p> <p><i>Firmware Design: Arduino IDE</i></p> <p><i>PLC Programming: Matlab/Simulink, LabView</i></p> <p><i>Simulation Tools: Matlab/Simulink</i></p> <p><i>Tools: SAP, EasyDMS</i></p>
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(12 months)

GENERAL CONTEXT: SCHNEEBERGER STANDS FOR PIONEERING INNOVATIONS IN LINEAR MOTION TECHNOLOGY. LINEAR GUIDEWAYS AND PROFILE RAIL GUIDEWAYS TOGETHER WITH MEASURING SYSTEMS, RACKS, SLIDES, POSITIONING SYSTEMS, MINERAL CASTING AND BALL SCREWS ARE ALL PART OF OUR EXTENSIVE MANUFACTURING CAPABILITY AND PRODUCT RANGE.

PROJECT'S DESCRIPTION: DEVELOPMENT OF A WAFER MANUFACTURING MACHINE (FLIP-CHIP PLACER) WITH HIGH ACCURACY

RESPONSIBILITIES AND COMPETENCES

- ↳ Mechanical Engineering
- ↳ Electrical Engineering
- ↳ Prototype Assembly
- ↳ Test Engineering

TECHNICAL ENVIRONMENT	<i>Hardware Design: Inventor PLC Programming: ACS SPiiPlus</i>
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(3 months)

GENERAL CONTEXT: GALLUS IS SPECIALISED IN SUPPORTING AND ASSISTING LABEL PRINTERS BY OFFERING A COMPREHENSIVE PORTFOLIO OF MACHINES AND SERVICES FOR SUCCESSFUL PRODUCT MANUFACTURE. WE THEREFORE DEFINE OUR AREAS OF ACTIVITY BASED ON OUR CUSTOMERS' NEEDS AND BY PLAYING A LEADING ROLE IN THOSE SECTORS THEY ARE ACTIVELY INVOLVED IN. THIS LEADING ROLE IS ACHIEVED BY PROVIDING LABEL AND FOLDING CARTON PRINTERS WITH SERVICES AND PRODUCTS THAT YIELD THE MAXIMUM BENEFIT.

PROJECT'S DESCRIPTION: REDESIGN OF LABELMASTER PRINTING MODULES

RESPONSIBILITIES AND COMPETENCES

↳ Mechanical Engineering

TECHNICAL ENVIRONMENT	Hardware Design: Siemens NX PDM-System: TeamCenter
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(1 month)

GENERAL CONTEXT: VARIAN IS A LEADER IN DEVELOPING AND DELIVERING CANCER CARE SOLUTIONS AND IS FOCUSED ON CREATING A WORLD WITHOUT FEAR OF CANCER. HEADQUARTERED IN PALO ALTO, CALIFORNIA, VARIAN EMPLOYS APPROXIMATELY 10,000 PEOPLE AROUND THE WORLD.

PROJECT'S DESCRIPTION: REDESIGN FOR NORM-CONFORMITY FOCUSED ON DURABILITY OF THE HOUSINGS AND RESILIENCE AND PROTECTION AGAINST ELECTROSTATIC DISCHARGE.

RESPONSIBILITIES AND COMPETENCES

- ▶ Durability Testing
- ▶ PCB Layout Redesign

TECHNICAL ENVIRONMENT	<i>PCB Design: Altium Designer</i>
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(12 months)

GENERAL CONTEXT: THE INSTITUTE FOR MEDICAL ENGINEERING AND MEDICAL INFORMATICS CONDUCTS RESEARCH INTO DIAGNOSTICS IN LIVING ORGANISMS AND THERAPEUTIC SYSTEMS. THIS WORK FOCUSES ON PATIENT-SPECIFIC SOLUTIONS AND ON PROCESSING, ANALYSING AND COMMUNICATING MEDICAL DATA. IN COOPERATION WITH OUR PARTNERS, WE ADDRESS PROBLEMS FROM THE FIELD OF MEDICINE AND DEVELOP INNOVATIVE SOLUTIONS FROM THE INITIAL IDEA THROUGH TO A FUNCTIONAL MODEL.

PROJECT'S DESCRIPTION: AMM-MEPEX
FEASIBILITY STUDY FOR AN AUTONOMOUS MOBILE AND MICRO-CONTROLLER BASED THERAPY SYSTEM FOR THE TREATMENT OF A FUNNEL CHEST.

RESPONSIBILITIES AND COMPETENCES

- ▶ Project Management
- ▶ Development
- ▶ Testing

TECHNICAL ENVIRONMENT	<i>Project Management: Office</i> <i>Hardware Design: Siemens NX / Solid Works</i> <i>PCB Design: Target 3001</i> <i>Firmware Design: Arduino IDE</i> <i>Software Design: Java</i>
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