

Silicon Mobility

Internship Description

Basic Software (BSW) Drivers development
on Automotive chip
(SM-STC004 / 2021)

Internship Description

Company	<p>SILICON MOBILITY SAS (<i>immatriculée 815 085 659 000 28 RCS Grasse</i>)</p> <p><u>Siege social</u> : Les Aqueducs – Bât 2 – 535, route des Lucioles – 06560 Valbonne Sophia-Antipolis</p> <p>The Automotive industry is living a revolution. Electrification, autonomous driving, diverse mobility, connectivity are trends that are drastically changing the industry’s rules. Among all decisive topics revolutionizing cars in the next future, Silicon Mobility is committed to support the rapid advent of electric and hybrid cars.</p>
	<p>Silicon Mobility is a technology leader for cleaner, safer and smarter mobility. The company designs, develops and sells flexible, real-time, safe and open semiconductor solutions for the automotive industry used to increase energy efficiency and reduce pollutant emissions while keeping passengers safe.</p> <p>We are looking for a good candidate to join our R&D team working in Sophia-Antipolis on the Côte d’Azur. Please contact us: internship2021@silicon-mobility.com</p>
Offer Number	SM-STC004-2021
Project Title	Basic software (BSW) Drivers development on Automotive chip
Period	6 months– between February and September 2021
Working hours	35 hours a week at silicon Mobility office
Income	1000€/month + Tickets Restaurant
Student level	Internship for Master/Engineer Degree
Project Description	<p>Silicon Mobility is actively working on its semiconductor product roadmap Our product embeds several ARM processors, and HW resources dedicated to powertrain, safety, security and communication.</p> <p>This internship consists in defining and developing several device drivers within the Basic Software (BSW) layer. BSW is a collection of embedded software modules which offers services needed to run the functional part of the upper software layer (system/application).</p> <p>The project contains: <u>Introduction</u></p> <ul style="list-style-type: none"> • Analyze and understand the OLEA® FPCU and its components. <p><u>Development steps</u></p> <ul style="list-style-type: none"> • Study and understand the module functionalities (powertrain and safety modules). • Define the software requirements. • Describe the driver software architecture and refine it into more precise description of the functions to be developed. • Code implementation in embedded C. • Functional and integration tests: definition, development, and execution. This implies SW and HW debug on the target.
Profile	For this training we are looking for a candidate with good knowledge on embedded systems and embedded C programming.



Skills developed

RTL simulation and FPGA prototyping will be also an advantage.
Good skills in Hardware design for embedded system would be appreciated.
The good candidate will be autonomous, rigorous with a strong team spirit.
English speaking is required.

- Embedded C coding
- Embedded systems knowledge
- Real time software constrains
- RTL simulation and FPGA debug
- Quality management skills