

# Embedded Software / Test Engineer - CTBC

## Your tasks

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As a member of the Digital & Data Solutions Embedded Software team (DDS eSW) within ContiTech, you own the integration test layer across the hardware/software boundary. Your core question is: does this build actually work on hardware – and can you prove it automatically, every time a commit lands?

Your first mission is the HIL rig itself. You receive the template and BOM from the DDS embedded team, assemble it from parts and our PCBs, commission it, and walk local plant management through sign-off. Once running, you own the test suite: every new feature, sensor variant, and firmware release must pass through the gate you maintain.

Your second mission is sensor-to-cloud integration testing – owning the full path from physical transducer to cloud dashboard: write the test fixtures, validate data correctness end to end, and build the automation that confirms it stays correct over time. This is a breadth role: you work at every layer of the stack – bench wiring, firmware driver inspection, application layer mocking, CI pipeline – and your value is the integration throughput you create across those layers.

## You

- Receive the DDS-supplied BOM and PCBs; assemble, wire, power on, and commission the HIL rig; walk plant management through sign-off; maintain the rig as hardware and firmware evolve
- Write pytest-based automated test cases covering hardware/software integration; maintain and extend the suite across product variants and firmware releases
- Connect physical sensors to the data acquisition chain; write or adapt drivers (C/Python); validate data paths through to the cloud dashboard
- Integrate MODBUS, CAN, and UART/SPI/I2C protocols at the application boundary
- Own the GitHub Actions release gate – the question "does this build pass on hardware?" is yours before every release
- Use bench instrumentation (oscilloscope, logic analyser, signal generator) to diagnose signal integrity issues at the hardware level

## Your profile

- HIL build and bench lab setup – has assembled electronics from schematics and a BOM; can bring up a test rig from parts and PCBs and walk plant management through sign-off; not just operating an existing rig – building one
- Sensor integration – has taken a physical sensor from datasheet through wiring, driver code, and data validation to a live data stream;



Job ID  
**REF95960H**

Field of work  
**Information Technology**

Location  
**Timișoara**

Leadership level  
**Leading Self**

Job flexibility  
**Hybrid Job**

Legal Entity  
**ContiTech Thermopol Romania S.R.L.**

- can debug at the hardware level, not only the software level
- Embedded Linux – working knowledge sufficient for application-layer integration; can read kernel logs and understand why a service is crashing (BSP ownership not required)
- Firmware integration – comfortable reading C code, writing or adapting a driver, and inspecting a protocol implementation
- Protocol integration – at least one of MODBUS, CAN, UART/SPI/I2C
- Test infrastructure – pytest or equivalent; GitHub Actions; CI result reporting; has written automated tests that run in a CI pipeline
- Release readiness – has owned a "does this build pass on hardware?" gate for a firmware release
- Desirable: bench instrumentation (oscilloscope, logic analyser, signal generator); pytest fixture design; AWS IoT Core data path validation; Docker; GitHub Actions at pipeline-author level; CAN stack or automotive sensor integration background

## Our offer

What we offer:

The 13-th salary - Paid once a year, in December;

Meal tickets - With a value of 40 Ron;

Private Health Insurance - Health is the most important, so we offer you a medical subscription through Signal Iduna;

Referral bonuses - We encourage colleagues to refer new candidates to us and, at the same time, to get the chance to receive a bonus;

Bookster - Feed your body and your mind. You can borrow books and you'll receive them at the office;

Sports benefits- It's important to stay active, so we offer you the 7Card;

Discounts at our partners - We collaborate with different vendors, and we receive discounts for various products/ services like rubbers, restaurants, kindergartens, etc;

System for Rewarding Improvement Ideas - We have an internal improvement program (Continental Idea Management) that gives you the opportunity to come up with ideas and to be honored with an attractive bonus (this is established by the CIM team according to your improvement idea);

Happy days - If you or your child is getting married, or you become a parent, you receive some extra free days;

Life events celebration - If your family is growing, we praise your newborn with a bonus;

Unfortunate events - In case of unhappy events in your life, we support you by offering you free days and financial support (handled on a case by-case basis);

Extra vacation days - You begin with 22 vacation days/year, and starting with the 3rd year with us, we offer you 1 more day of vacation and. We reward employees who reach 15 and 20 years within the company with another day of vacation, reaching a maximum of 29 days.

Transport from the Timisoara area - You can choose to come with the bus provided by the company if you'll work from the plant location/office;

Professional development - Many opportunities to develop yourself within the company;

Diversity and multicultural mindset - We encourage you to join us no matter who, where, or what you are. We have colleagues from different nations and a variety of languages are spoken in our company.

Ready to drive with Continental? Take the first step and fill in the online application.

## **About us**

ContiTech Business Hub in Timișoara in a key location for ContiTech hosting various functional teams

ONE ContiTech - The first choice for material driven solutions. Contitech Industries is part of Continental Holding. Headquartered in Hannover, Germany, the division contributes to 4B+ to the revenue.

Are you interested in shaping the future of ContiTech together with a great team? Please join us and contribute to our goals with your new role as Embedded Software / Test Engineer (HIL + Integration).