



Embedded Systems Architect/Engineer

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Intelligent Product Solutions (<http://intelligentproduct.solutions>) is a leading product development professional services company. The leadership and senior engineering team are deeply talented with unparalleled experience in industry and consulting services. Our client base includes some very well-known Fortune 100 brands as well as budding startups. Because of our explosive growth, we are seeking talented individuals to join our team.

Our company is seeking highly motivated embedded software engineers who would enjoy working on diverse and challenging products. We are looking for individuals who have high creativity balanced with strong engineering fundamentals. We seek developers experienced in multiple environments with expertise in a diverse set of programming languages and technologies. We are engaged in all phases of the embedded system development lifecycle, from requirements to deployment, constantly working iteratively and delivering quality product through agile development practices.

This is an embedded systems development position where the individual is expected to perform direct hands-on development for embedded systems on client projects. Prior experience in performing hardware (digital and some analog) as well as embedded software (bare metal, RTOS and Linux based) development is a must. Must understand end-to-end IoT system: from edge device, through cloud and to user interface such as App or web interface.

The ability to work with cross-functional engineering teams is required. We seek high-energy individuals who are self-directed, take responsibility and can manage their individual work; satisfying customers who expect on time and budget delivery that meets or exceeds requirements. Outstanding communication and interpersonal skills are required as this position will require frequent contact with our clients on a technical and business level.

Position Embedded Systems Architect/Engineer JOB REQUIREMENTS & QUALIFICATIONS

EXPERIENCE REQUIRED:

- Broad technical background, with an emphasis on EE/Embedded SW. BS in Engineering; Computer Engineering or Electrical Engineering required; MS preferred
- Preference for EE/ Computer Engineer with 15+ years' experience in electrical design and embedded software development
- Minimum 10+ years experience in electrical design and analysis as applied to small digital/analog design, electronic/mechanical packaging.
- Able to drive complex system architecture (HW and Embedded Software)
- Must be able to drive detailed requirements with cross-functional multidisciplinary teams
- Must be a self-starter with the ability to manage their individual work, and manage a small project team
- Someone who can get into the weeds with our engineers and define an overall systems architecture and then elicit and arbitrate design tradeoffs
- Keen ability to develop effective requirements. This includes the ability to work directly with clients to identify what they need, why they need it, and potentially recommend revisions to the requirements based on practical reality.
- Strong communication and interpersonal skills. This is a client-facing position, so experience working with customers in a collaborative way is important.
- Team/Project Management. Ability work with the internal engineering team and client representative(s) throughout the project to establish milestones, ensure deliverables meet the requirements, schedule, and budget constraints, and keep the project moving forward as planned.
- Experience designing microprocessor and microcontroller sub-systems/circuits is required.



- Quantitative skills include classical hand calculations of power, timing, noise immunity and thermal analysis as well as detailed tolerance analysis for high precision systems.
- Direct experience in use of CAD tools is required with a preference for those with circuit simulation expertise.
- Experience with secure communications and Protocols CAN, BT / BLE, USB, I2C, SPI, RS232, 485, WiFi (802.11- AP, STA)
- Possess an understanding of hardware feedback and control systems and the ability to implement control algorithms in software. (Motor control)
- "Bare Metal" embedded software development using in embedded C/C++
- Experience in embedded RTOS application level and middleware software development
- Development experience in embedded hardware systems involving microcontrollers (especially ARM based architectures) is highly desired
- Prior work using ST Microelectronics ARM Cortex-M microcontrollers (STM32Fxxx), Amtel (SAMxx), PIC, Nordic RF5x, Rigado, Silicon Labs chipsets desired.
- Test-Driven development, Continuous Integration and other Agile practices
- US Citizenship (preferred)
- Position is for contract to permanent

ESSENTIAL FUNCTIONAL RESPONSIBILITIES:

- Lead design of moderate to complex level parts and sub-systems of larger, more complex systems.
- Perform tolerance analysis and simple engineering analysis of electronic sub-systems using classical hand calculations.
- Work in the context of larger multi-functional teams including other electrical engineers.
- Required to work independently on smaller projects where they may need to direct the work of a small number of supporting staff members.
- Expected to have achieved competency in schematic design and capture as well as board layout for high speed digital designs as well as analogy circuitry as an applied to moderately complex design tasks if needed.
- May be required to investigate and resolve moderately complex problems.
- Expected to be able to use CAD tools, particularly in regard to circuit simulation, for routine use in the performance of their duties
- Must possess excellent communication skills and able to lead teams and interface with clients on a daily basis as needed.