

Embedded Systems Development

Conekt specialises in developing embedded sensing, guidance and dynamic control systems for safety-related applications in the automotive, aerospace, defence and energy industries. By applying our wealth of knowledge and experience, we are able to deliver an innovative approach to solving challenging problems in the most demanding environments. Our automotive engineering heritage enables delivery of high-performance yet cost-effective solutions and our design rules, quality management and product introduction processes ensure integrity, reliability and dependability.

Conekt offers a wide range of services from feasibility studies through to prototype system design to low volume product supply. Underpinned by its expertise in software and algorithm design, sensor technology, data fusion and control engineering, Conekt is well-equipped to support organisations that are engaged in embedded systems development.



Conekt also provides a comprehensive suite of environmental testing services using its UKAS accredited test laboratory so is able to ensure that demanding product validation programmes can be undertaken. Our product validation capabilities include EMC testing (immunity and emissions), vibration testing and climatics testing. Additionally, Conekt enhances product and process reliability by working closely with clients and their supply chain partners to address problems and identify improvement opportunities.

Technical Capabilities and Experience

Conekt's embedded systems development capabilities include:

- Rapid software prototyping
- Video image processing
- Radar signal processing
- Safety critical embedded software
- Electronic architecture development
- Programmable logic design for large Field Programmable Gate Arrays (FPGA) and small Complex Programmable Logic Devices (CPLDs)
- Processor in the Loop simulated Fault Insertion Testing (FIT)

Conekt has applied its expertise in a number of different projects and to clients in a range of industries. Examples include:

- Driver Assistance System development
- Unmanned ground vehicle guidance
- FPGA algorithm optimisation
- Low level fault diagnosis and failure analysis
- Bespoke ECU design
- X-by-wire system development
- Software development for Electric Power Assisted Steering (EPAS) systems

Service Delivery

Conekt delivers support to clients on a project-by-project basis. At the start of any engagement Conekt will help define requirements and deliverables to facilitate the meeting of a project's objectives. The Conekt project team will consist of experienced technical specialists who have relevant expertise and knowledge. To reduce risk and enable changes in requirements to be managed efficiently, all of Conekt's project assignments are undertaken using a stage-gate approach with defined review, approval and authorisation points. Conekt's project management processes are compliant with the requirements of ISO 9001:2008 and are applied throughout a project's lifecycle from kick-off to closure.









