

IoT Development Kit (IDK)

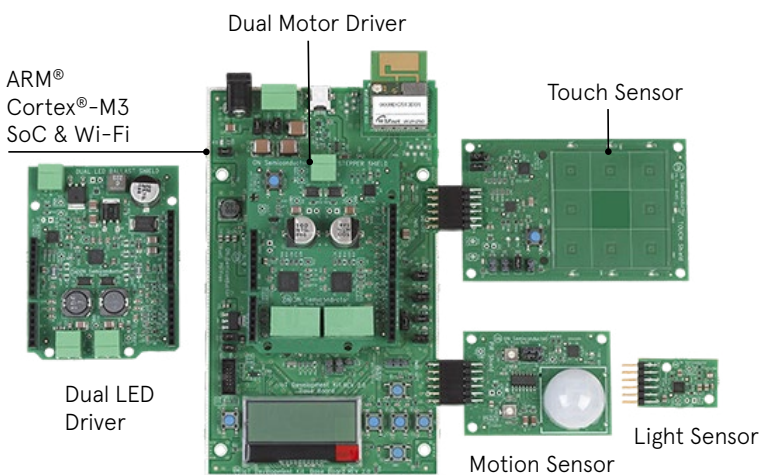
AVNET[®] SILICA

CONFIGURABLE RAPID PROTOTYPING PLATFORM FOR INDUSTRIAL IoT, SMART CITY/BUILDING, AND mHealth APPLICATIONS

The IDK is a fully configurable platform that enables engineers to design and offer differentiated IoT products and systems for a broad range of end applications, including smart home/building, smart city, industrial automation and mHealth.

By attaching different daughter cards to the IDK baseboard, a wealth of connectivity (SIGFOX, Bluetooth[®] Low Energy, Ethernet and 802.15.4 based radios enabling ZigBee, etc.), sensor (Smart Passive Sensor, Motion, Ambient Light, Proximity, Heart Rate, etc.) and actuator (Dual Stepper, BLDC and Power Stage or LED and Ballast) options can be added to the system. This means that compromises do not have to be made and the most suitable technology for a specific application can be chosen.

The IDK gives engineers a development resource that combines advanced IC technology with a sophisticated software framework in order to significantly aid 'device-to-cloud' IoT deployment, accelerating prototyping and shortening time-to-market cycles.



Rethink what's possible with solutions that help you do more with less. Think ON.

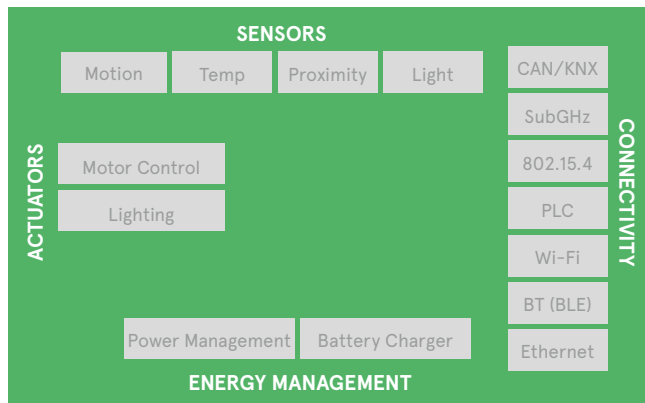
FEATURES & BENEFITS

- Comprehensive portfolio of sensors, connectivity and actuator devices
- Individual API for each and every device
- Complex C Code examples adapted to multiple applications
- Integrated development environment
- Full documentation of system hardware and software design
- Cloud software
- Ready to use for fast turnaround from concept to production

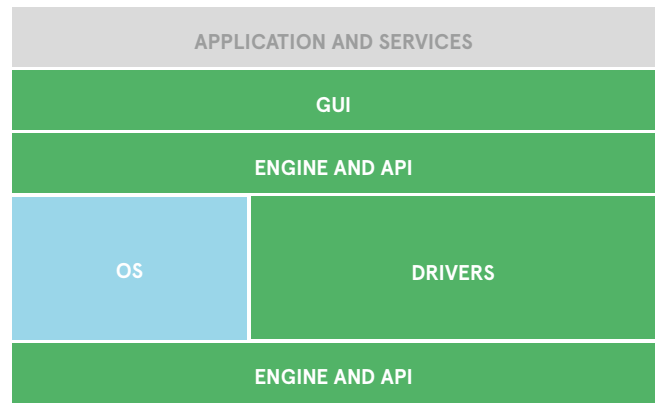
APPLICATIONS

- Motor Control
- Climate & Sense Control
- Lighting & Sense Control
- Process Control
- Motion Control
- Position Control
- Patient Monitoring
- Healthcare

HARDWARE



SOFTWARE FRAMEWORK



MODULES CAPABILITIES

| | |
|---------------------------------------------|------------------|
| Baseboard | BB-GEVK |
| Wireless Connectivity: SIGFOX EU | EU-SIGFOX-GEVB |
| Wireless Connectivity: SIGFOX US | US-SIGFOX-GEVB |
| Wired Connectivity: Power over Ethernet | POE-GEVB |
| Wired Connectivity: CAN | CAN-GEVB |
| Wireless Connectivity: Bluetooth Low Energy | BLE-IOT-GEVB |
| Sensor: PIR motion | PIR-GEVB |
| Sensor: Ambient light | ALS-GEVB |
| Sensor: Touch/proximity/level | TS-GEVB |
| Sensor: Battery Free Sensor | SPS-READER-GEVK |
| Sensor: Multi Sensor Board | MULTI-SENSE-GEVB |
| Actuator: Dual stepper motor | D-STPR-GEVK |
| Actuator: Dual LED + ballast | D-LED-B-GEVK |
| Actuator: BLDC motor control + power stage | BLDC-GEVK |

SOFTWARE DEVELOPMENT TOOL

| | |
|-------------------------------|--------------------------------------------------------------|
| Development Environment (IDE) | Eclipse (Mars) + CDT + GNU Arm® for Eclipse |
| Supported Operating Systems | Windows® |
| Baseboard Processor | Arm Cortex®-M3 processor |
| Shield Boards | Connectivity, Sensors, Actuators |
| Operating System / RTOS | Arm mBed™ |
| Toolchain | GNU tools for ARM |
| Debugger | gdb |
| Libraries | mBed, ON Semiconductor shield board libraries |
| IoT/Cloud Platform Support | Carriots, compatible with most commercial cloud platforms |
| IoT Protocols | REST, MQTT, HTTP |
| Connectivity Protocols | SIGFOX, Thread, EnOcean, BLE, MBUS, PoE, Wi-Fi, CAN, Zigbee® |



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