



## InvenSense Firefly Developer's Kit and SensorStudio

To enable rapid prototyping and development of IoT applications we have created the FireFly Development Kit. The Kit is composed of 3 critical components. The first being ICM-30630 with integrated sensor framework software, the second is our new development tool, SensorStudio, and lastly the Arduino Zero board.

A 3<sup>rd</sup> party sensor shield comes with the kit so you can leverage compass, pressure, and proximity sensors. The sensor software that runs wholly on the ICM-30630 supports these additional sensors, this software solution is also MCU agnostic. The on board cortex M0 is an open platform that acts as a sensor hub and houses the sensor framework software. The remaining memory space is available for developers to implement their own logic.

SensorStudio is our new development tool used to ease the development and programming of the FireFly platform. The simple GUI uses sensors blocks that can be arranged in elegant flow charts for developers to run and validate their program, this makes for rapid prototyping application development. InvenSense supplies our standard sensor block functions derived from our sensor framework software. Developers can also create their own custom sensor functions and verify their functionality in SensorStudio.

SensorStudio lets you visually assemble elements in a logical way and access all the necessary visualizations that fully support the sensor fusion design cycle needs. SensorStudio lets you program and add your own sensors to the Sensor Framework via a documented set of APIs to control I2C, GPIO, tasks and timers, in a way the complexity of real-time OS is not visible. SensorStudio brings a unique level of simplification and integration the IoT market needs to build Smart applications faster.

This is also our first ever development kit that is plug in compatible with Arduino. Arduino has a massive following and is a popular choice for developers due to the open nature of their software and hardware. The Arduino Zero contains an ARM Cortex M0+ MCU from Atmel. Once the ICM-30630 memory is fully used, the cortex M0+ provides plenty of additional horsepower and memory space for application development. Another benefit is the added connectivity the Zero board has with a plethora of additional shield from Arduino.”

