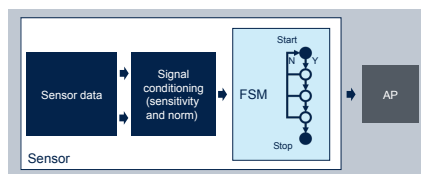


Examples and tutorials for the embedded finite state machine (FSM)



Features

- Examples and tutorials for the finite state machine feature
- Available in the STMicroelectronics public GitHub repository

Description

A finite state machine (FSM) is a mathematical abstraction used to design logic connections. It is a behavioral model composed of a finite number of states and transitions between states, similar to a flowchart in which it is possible to inspect the way logic runs when certain conditions are met. The state machine begins with a start state, goes to different states through transitions dependent on the inputs, and can finally end in a specific state (called stop state). The current state is determined by the past states of the system.

The FSM is available in many ST MEMS sensors and can be configured to generate interrupt signals activated by user-defined motion patterns.

Some devices including an FSM also have an interface for the machine learning core (MLC) feature, in order to implement conditions on the output of a decision tree or on the value of a computed filter / feature.

Moreover, some devices including an FSM, also have the possibility to automatically reconfigure the device without any intervention from the host processor. This is possible thanks to the adaptive self-configuration (ASC) feature.

Examples and tutorials for the finite state machine feature available on some STMicroelectronics sensors are provided in the STMicroelectronics public GitHub repository.

The repository contains FSM configurations covering various use cases and ready to be used with the sensors. It also contains tutorials describing how to create example solutions using different ST hardware kits and software tools. Further details are available in the README section of the GitHub repository.

Product summary	
Examples and tutorials for the embedded finite state machine (FSM)	FSM-Examples

Revision history

Table 1. Document revision history

Date	Version	Changes
08-Jul-2019	1	Initial release
05-May-2025	2	Updated title, Features , and Description

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