



# Flexible MCU Family Protects Software Investment

Microcontrollers | Healthcare and Fitness | Case Studies



## Customer's Needs

Scalable MCU core & memory options  
Energy-friendly low-power

## Results

Rapid follow-up features  
Protected software investment

## Customer's Needs

EFM32™ 32-bit MCUs

**Getting new features to market quickly can make or break a company. Don't reinvent the wheel every time your product improves.**

### Situation:

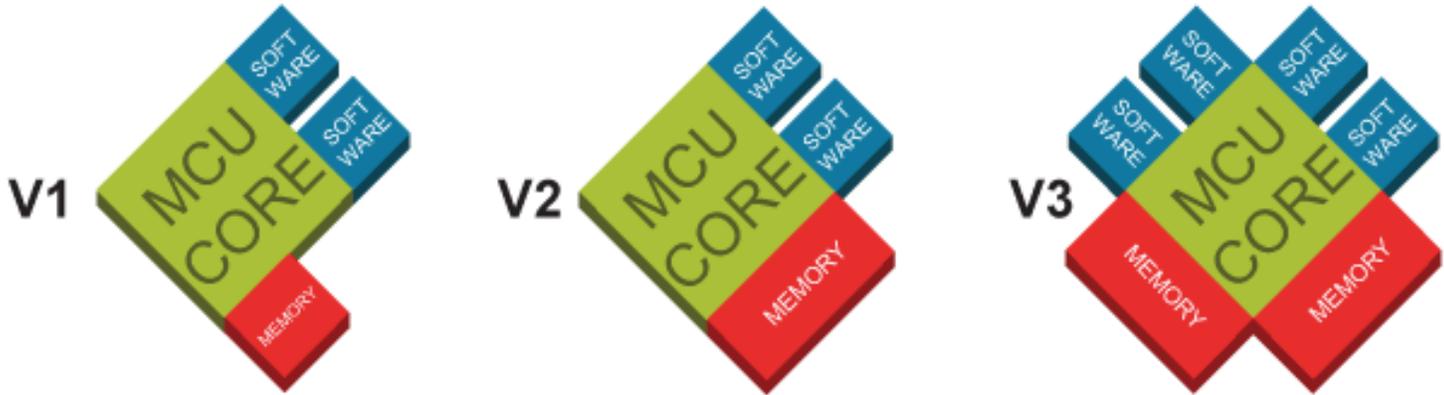
A leading personal fitness brand produced a popular wearable-style activity monitor. They needed to bring new features to market quickly, without having to start from scratch for every project. Their challenge was to select a flexible and scalable MCU family that protects their software investment and operates at low power.

### Solution:



Our customer selected the EFM32 microcontroller, because of its processor core's scalable range of memory options. Software for one EFM32™ family member runs across the other members, protecting their software engineering investment. With the highly flexible EFM32 microcontroller family, they selected just the right MCU device for their technical and budgetary needs.

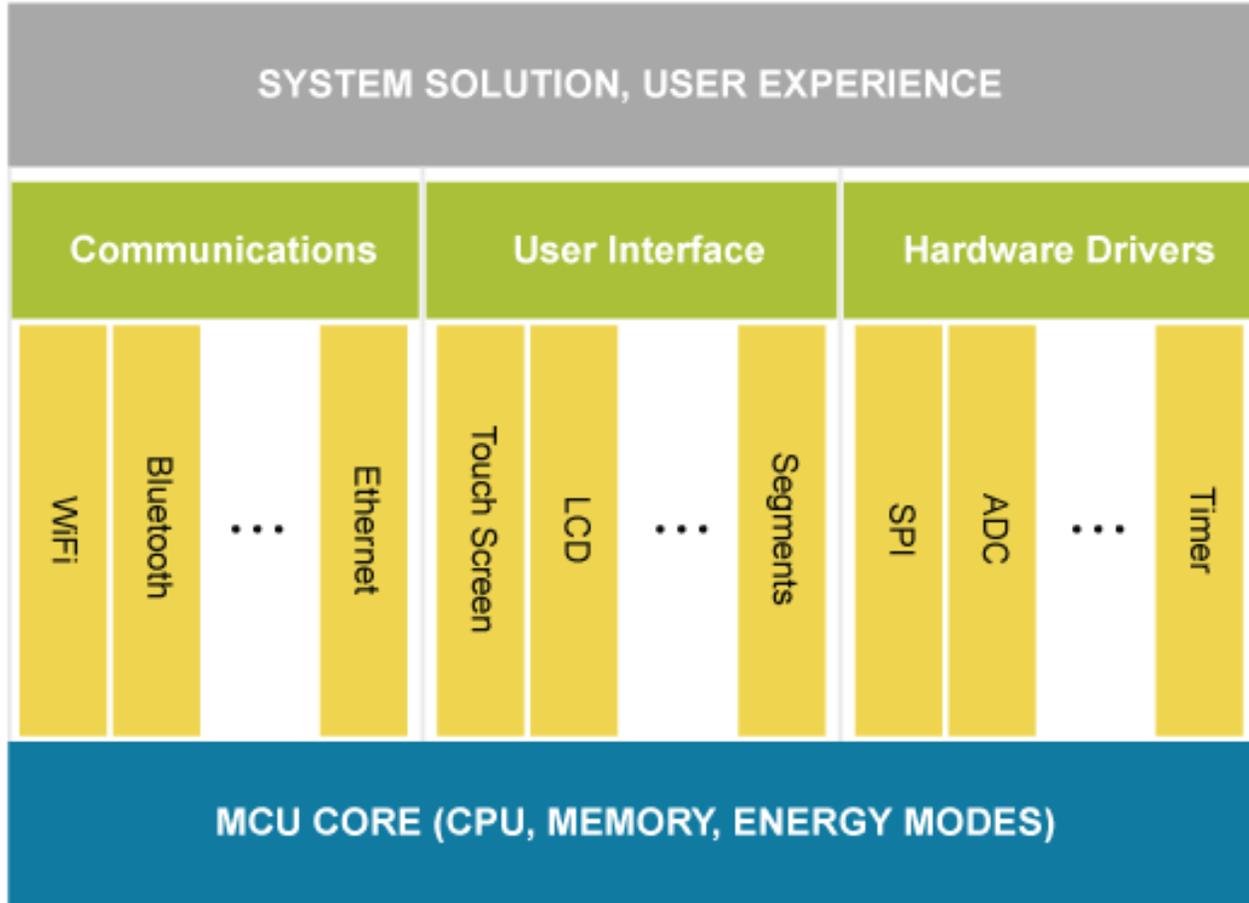
**SCALABLE** TO EASILY MEET TECHNICAL AND BUDGET NEEDS



**Benefit:**

Our customer successfully launched their first product using the EFM32™ and received great consumer reviews. With no time to waste, they followed up with new features and enhanced performance. Time-to-market for their new features was greatly improved since the EFM32 MCU gave them a path to true software reuse.

**Silicon Labs Software Scalability System**



## MCU Fundamentals:

- **Energy Mode:** Operating condition that balances effective circuit operation with the lowest possible energy usage. EFM32 offers #ve energy mode levels: Run, Sleep, Deep Sleep, Stop, and Shutoff
- **Software, Firmware, Code:** Several names exist for the programming code that supports MCU hardware. An MCU's code must be closely matched to the hardware for proper operation. If a range of MCU products can execute the same code without modi#cation it saves development time.
- **Reusable Software:** Firmware must be carefully matched to its hardware, this makes it dif#cult to move programs between devices. When program code or firmware is movable, this is called software reuse. Software reuse greatly reduces the cost of developing new programs and features.
- **Scalable Hardware Options:** A range of MCU processor core and memory options are able to run the same software. This allows designers to pick just the right MCU core and memory option to meet their performance and budgetary needs.