

Technology R&D to Create Next-Generation Products

Casio strives to be useful to society by offering people excitement and joy, valuing originality all the while. In this effort, Casio works to create technologies to meet needs that are just around the corner, while its research and development is focused further ahead.

Development of the EX-F1 to create new value in a digital camera



The EXILIM PRO EX-F1 is one of the latest additions to Casio's EXILIM family of digital cameras. With ultra-high speed burst shooting at 60 fps to make sure not a single decisive moment is missed, and a high speed movie recording mode which, at a maximum 1,200 fps, captures motion that the human eye cannot ordinarily perceive, this next generation digital camera is creating entirely new photographic genres that have never been seen before.

Capturing movement too fast for the eye to see

Thanks to a high-speed CMOS sensor and Casio's original LSI technology, users can easily capture rapid movements in sports, getting flawless records of those unrepeatable magic moments, like the split second a child breaks the ribbon at the school sports day.

"With high speed movie mode, you can save movies of movement that the eye can't even see—like when a balloon bursts and the pieces split apart, for example. You can change the capture speed on the fly, to make fun and dramatic movies that include slow motion sequences. Functions like these are only valuable when they are easy to use, so I took special care when designing the operability." (Nojima)

"I recommend high-resolution movies that can be saved at full high-definition size, with 1,920 × 1,080 pixels maximum. The camera has an HDMI output, so you can connect it directly to a full HD television and enjoy both still photos and movies." (Onoda)

Development as a cross-departmental project

In order to develop a camera with ultra-high speed burst shooting, an unprecedented function in the consumer segment, the development departments for digital cameras and leading edge technologies came together in a cross-departmental team to work on the project.

"This is an entirely new genre of camera, and we needed to capture the latent need for it precisely. First we released a prototype, and based on the feedback, we narrowed down the applications and functions, and the new functions arose from this process. As a result, we made further refinements, and I think we came up with a product that brings together the very best of the technical and development capabilities of Casio's digital cameras." (Nojima)



EX-F1

Pioneering a new, uniquely digital field

"The EX-F1 isn't just a replacement for a silver halide camera. I think of it as a camera that presents new applications that only digital technology can offer. It expands the use of cameras from 'storing' and 'recording' to 'analyzing' and 'observing,' and it holds the possibility of fundamentally changing the way that we enjoy photography. By making it possible for anybody, at any time, to take ultra-high speed shots without spending hours to set up expensive equipment, we expect that this camera will penetrate industries which currently require that expensive equipment, and to sectors where digital cameras haven't conventionally been used. We want to continue developing cameras that express the unique characteristics of our digital technology, and offer the world a new 'digital perspective.'" (Onoda)



Left: **Osamu Nojima**

Right: **Takashi Onoda**

QV Digital Camera Unit,
Product Development Headquarters