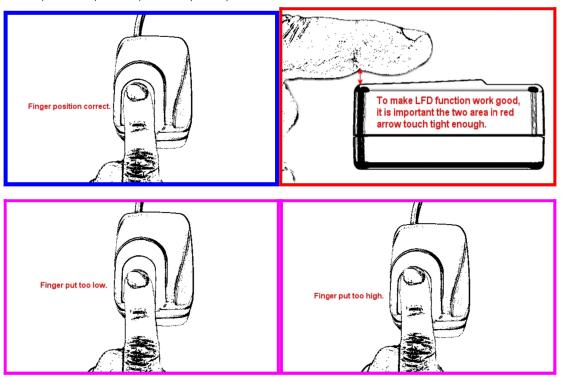
About Futronic's Live Finger Detection(LFD) technology

Futronic developed Live Finger Detection(LFD) technology to stop the access to secured data and location using fake fingers made from silicone, rubber, play-doh, etc.

Futronic has 3 options of Live Finger Detection(LFD)

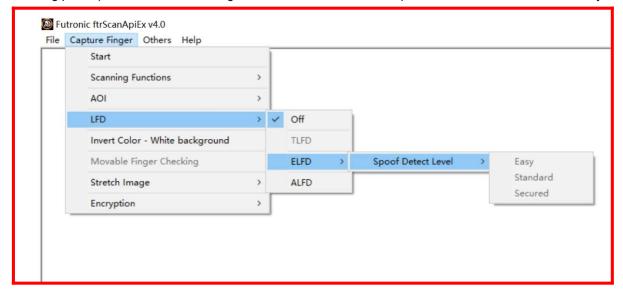
1. <u>Traditional Live Finger Detection (TLFD)</u>

This is an active sensing technology to detect live human finger. For TLFD to work properly, it is necessary for users to make fingers touching a special location on the fingerprint scanner. The following pictures are simple illustration. TLFD is supported on FS80H, FS82HC, FS88HS, FS26, FS26E and FS26EU.



2. Enhanced Live Finger Detection(ELFD)

The enhancement of performance is achieved by adding extra illumination into fingerprint scanner to collect more information. ELFD is supported on FS88HE. There are also 3 sub spoof-detect-levels for ELFD, Easy, Standard and Secured(check the following picture). Users can select the right one to use based on their requirement of convenience and security.



3. Advanced Live Finger Detection(ALFD)

This is the latest technology and its performance is better than the other two. ALFD is supported on FS88H, FS89H, FS88HS, FS26E, FS26EU, FS10, FS11, FS50, FS51, FS52, FS53 and FS64

Remarks

All the above options, TLFD, ELFD and ALFD can work on the host systems with the following platforms:

- 1. Windows 7/8/10, 32/64 bit.
- 2. x86 architecture Linux system for both 32bit(glibc 2.19) and 64bit glibc 2.12)
- 3. Android starting from version 4.0 on ARM 32bit and 64 bit CPU

However, they can't work at the same time but can work in the combinations of TLFD alone, TLFD+ELFD, TLFD+ALFD and ALFD alone. It is recommended to use TLFD+ALFD except for devices on which TLFD is not supported

Some users may feel that it is quite inconvenient to use LFD function. But it is worthwhile to sacrifice convenience a bit for better security. The LFD function can be de-activated in all Futronic products for applications that enhanced security against fake fingers is not necessary.