

Finger Positioning

SAGEM SA
Division Défense et Sécurité



Role of the enrolment ?

- To record two fingerprints in the Access Control System database. This operation needs to be processed with extreme care.
- To
 - ◆ get the best image quality
 - ◆ increase recognition performance
 - ◆ reduce recognition time

To get a good quality image, one needs to :

- Maximise the finger/sensor contact
- Position the centre of the finger tip according to the centre of the sensor
- Ensure a good quality contact
 - ◆ Do not press too hard
 - ◆ Do not move during image acquisition
 - ◆ Leave your finger on the sensor at least 2 seconds
 - ◆ Do not slide nor roll your finger across the sensor

Where are the fingerprint interesting information located?

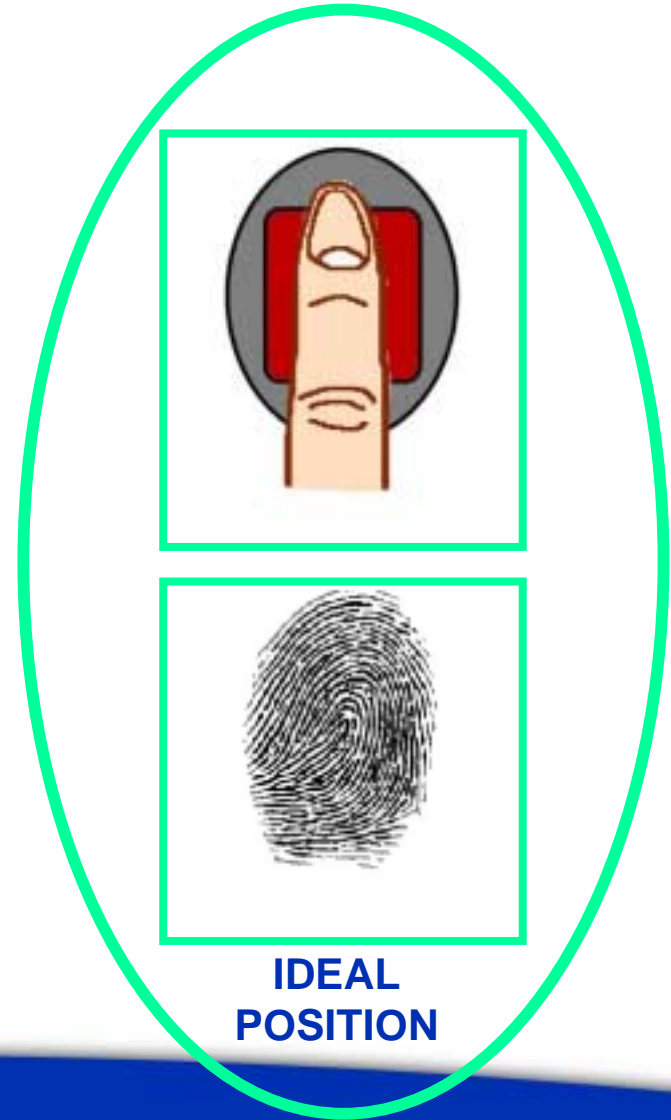
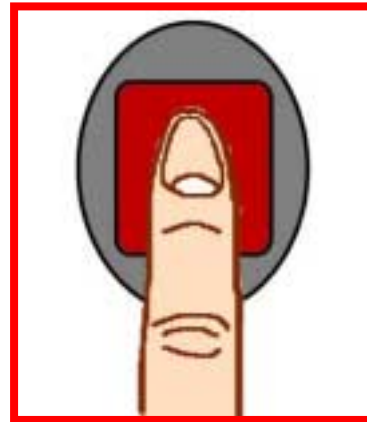
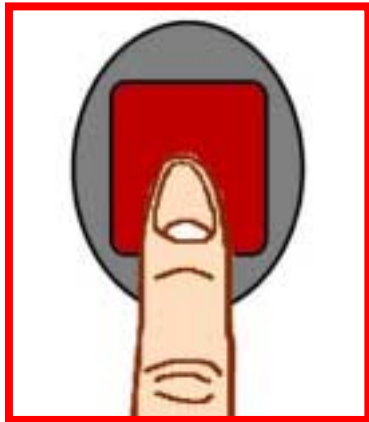
Area
containing the
maximum
information



It is usually located
in the centre of the
Finger Tip

How to position your finger correctly on the sensor :

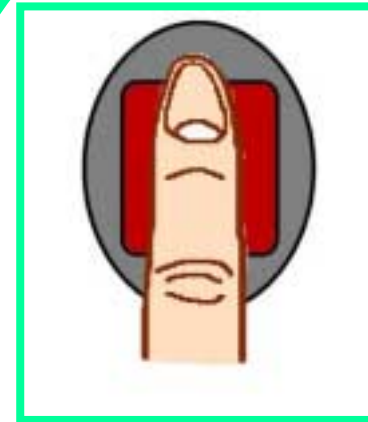
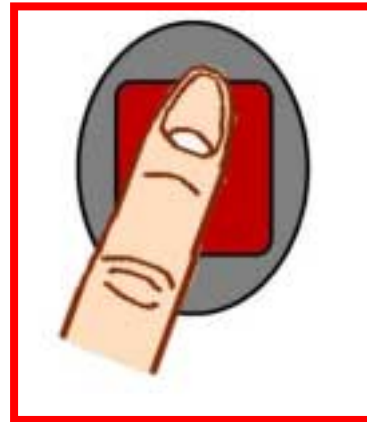
Finger Height



IDEAL
POSITION

How to position your finger correctly on the sensor :

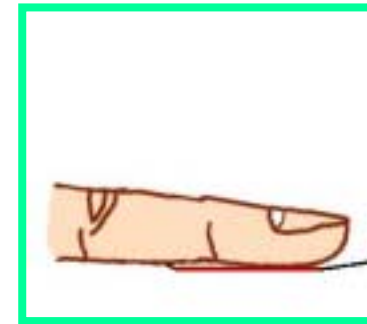
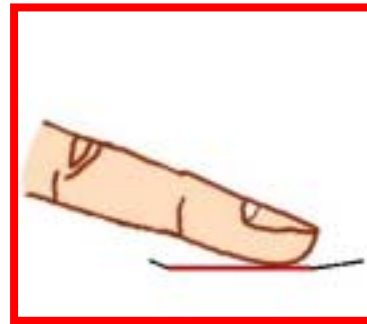
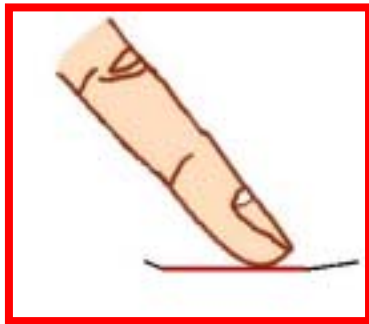
Finger Angle



**IDEAL
POSITION**

How to position your finger correctly on the sensor :

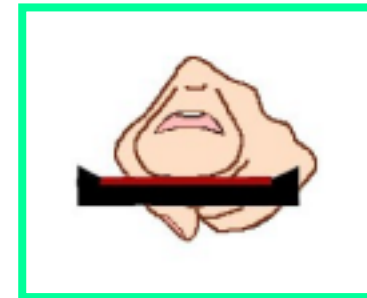
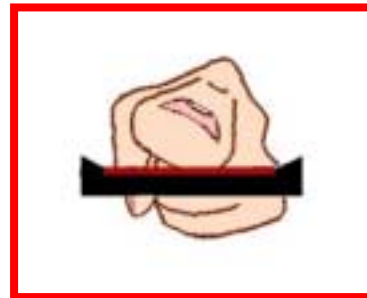
Finger Inclination



**IDEAL
POSITION**

How to position your finger correctly on the sensor :

Finger Rotation



**IDEAL
POSITION**

In which cases fingerprints quality is not the best?

- Dry finger or cold finger
- Consequence
 - ◆ Complex Image processing
- Solution
 - ◆ Brush the finger tip along your cheek or the side of your nose