

# Tips On Using The Camera In iOS Apps

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Taking photos of documents requires some skill and practice. The characteristics of your camera and shooting conditions are also important.

Before taking a picture:

1. Make sure that the page fits entirely within the frame.
2. Make sure that lighting is evenly distributed across the page and that there are no dark areas or shadows.
3. Straighten out the page if required and position your device parallel to the plane of the document so that the lens looks to the centre of the text being photographed.

## Things to Check

### Camera spec

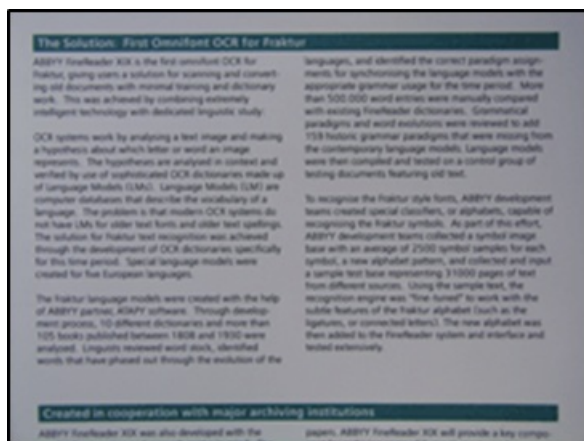
Minimum hardware specifications for OCR: 2MP camera, which is available on:

- iPad 3rd generation or newer
- iPhone 4 or newer
- iPod Touch 4th generation or newer

### Lighting

Make sure there is enough light (preferably daylight). In artificial lighting, use two light sources positioned so as to avoid shadows.





## Position of the Device

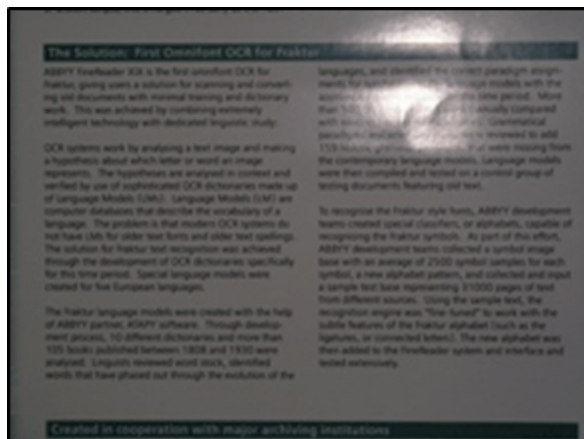
Position the camera lens parallel to the plane of the document and point it toward the centre of the text.

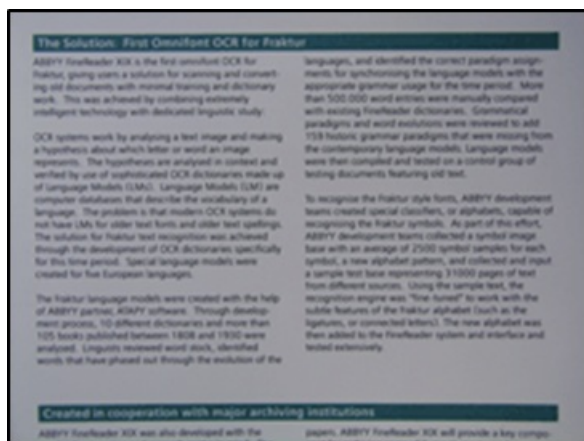
At full optical zoom, the distance between the camera and the document must be sufficient to fit the entire document into the frame. Usually this distance will be 50-60 cm.

## Flash

Whenever possible, turn off the flash to avoid glare and sharp shadows on the page. In poor lighting conditions, try using the flash from a distance of about 50 cm, or, preferably, use additional lighting.

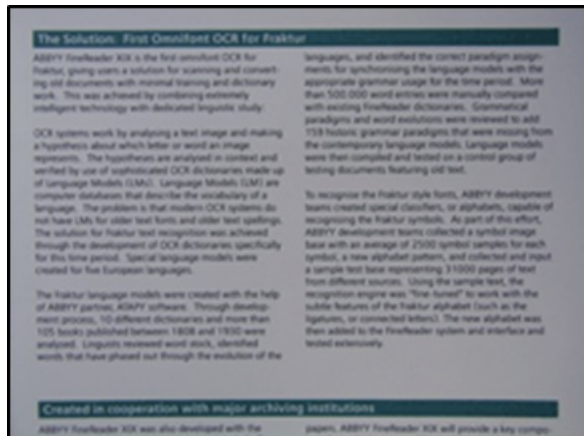
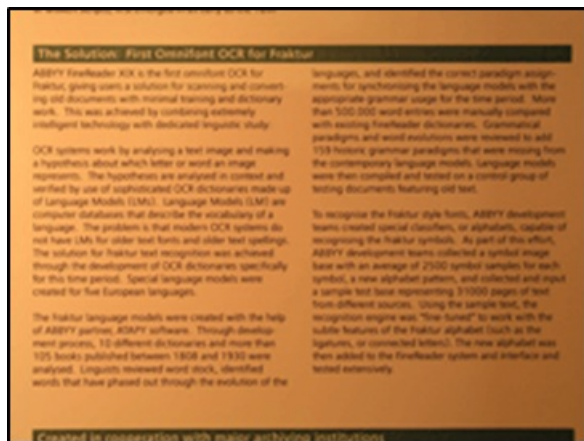
Important! Using the flash when photographing documents printed on glossy paper causes the worst glare.





## White Balance

Ensure the lighting conditions best reflect the colour of your document. Recognition occurs best with black text on a white background.



## Device Guide

iPad vs iPhone

## Display

You may notice that photos taken on an iPad appear to be larger and have a bigger resolution than the same photo taken on an iPhone would. This is not really true. This only appears so, because the screen size and screen resolution on an iPad are both bigger than that of the iPhone. In actuality, the photos

taken on an iPhone have a greater resolution than photos taken on an iPad.

## Camera

You may notice that photos taken with an iPhone are sharper than photos taken on an iPad. This is because the camera on the latest models of iPhones has a resolution of 8MP whilst the iPad has a resolution of 5MP. This allows for more detail in photos taken on iPhones compared with iPads. Photos taken with an iPhone may yield better OCR results compared with the photos taken on an iPad.

## Tips

- Tap to focus – iOS devices running iOS7 or later can be tapped on the camera screen to focus on a specific area.
- Try not to use the optical zoom as it is really more of a crop tool than a zoom tool. Zooming often loses detail, so it's better just to move closer to your target than it is to zoom in.
- Always keep the lens of your devices camera clean. The slightest smudge or fingerprint on the lens can result in soft looking photos.

## Still not working?

We know that recognising text from all manner of photographs is a massive technical challenge, but we have worked with optical character recognition for many years and are keen to continue the massive improvements that have happened. So if you have a photo of some text that doesn't appear to be speaking correctly, and you have tried taking a better photograph, email it to us and we can try to help.

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