

Photo registration iDFace

The purpose of this primer is to demonstrate best practices that facilitate the correct registration of a user's face in iDFace by means of a webcam, cell phone, camera, or the access controller itself.

Correctly collected images ensure that user identification will occur accurately and quickly. A registered photo that does not follow recommended practices may make it difficult or impossible to identify the user later on.

In this primer we will share some examples of wrong and right photos to assist in the process.

What is a good photo?

A good quality photo from the point of view of the face identification algorithm embedded in iDFace should follow some recommendations:

- 1. Angle:** The photo should be taken at a distance of approximately 60 cm from the webcam or equipment that will register the face. The face should be centered in the frame and looking directly at the camera. A photo taken at a different angle can make identification difficult.
- 2. Distance from the camera:** The person should be at least 60cm from the capture device and at most 1.5m away depending on parameters such as zoom. It is important that the image is captured without any distortion due to the lens(es) or similar.
- 3. Brightness:** The photo should not be taken in environments with very bright spots present in the image (i.e. bright lights, sunlight, etc.) or in a low-light environment. The face should be evenly lit, and photos taken under sunlight or in environments where the lighting is not even are not recommended.
- 4. Background:** The photo should have a white background or neutral backgrounds, and backgrounds with many complex colors are not recommended.
- 5. Effects, filter and makeup:** The use of any effect or filter is not allowed and will significantly degrade the face identification. Using too much makeup will also make quick and accurate identification impossible.

Photo registration iDFace

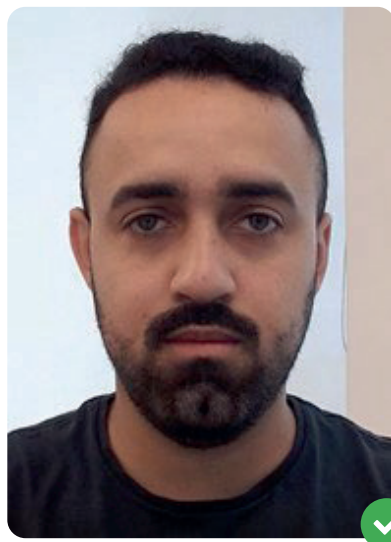
6. Resolution: The face must cover at least 160 pixels from ear to ear and the image cannot be resized and/or have its aspect ratio changed. The face must have a border of at least 10% of its width from ear to ear in all dimensions (for example, a 200-pixel face must have at least 20 pixels of clearance in all dimensions). The maximum size for the face (from ear to ear) is 1000 pixels and the image as a whole must not have more than 2,073,600 pixels (images with a minimum size of 160x160 pixels will be accepted until the product between the dimensions $1920 \times 1080 = 2,073,600$ pixels. For example, 300x300, 600x600, 2000x1000 images will be accepted but 4000x3000 will not).

7. Format: The ideal format is PNG but faces in JPG are accepted as well. If JPG is used, it is important that the quality factor is higher than 95 to preserve the important features of the face.

8. Number of faces present: It is essential that only one face be present in the photo.

9. Glasses and accessories: The person should not wear a mask, cap, helmet, sunglasses or any other object on the head. Eyeglasses are allowed as long as there is no reflection on the lenses (i.e. the eyes are perfectly visible).

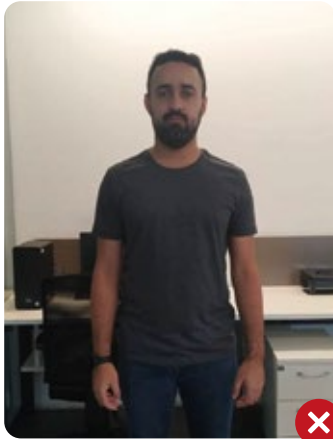
Example below of a "good" photo - centered, front-angle, and evenly lit:



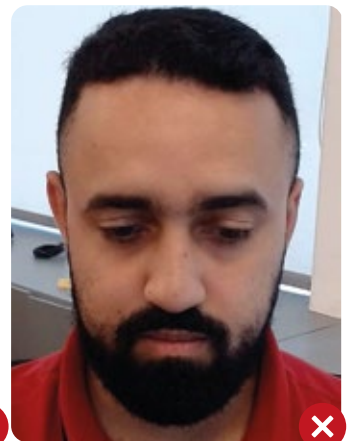
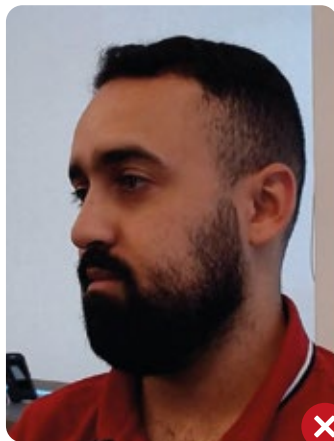
Control iD

Examples of incorrect photos

DISTANCE AND CENTERING

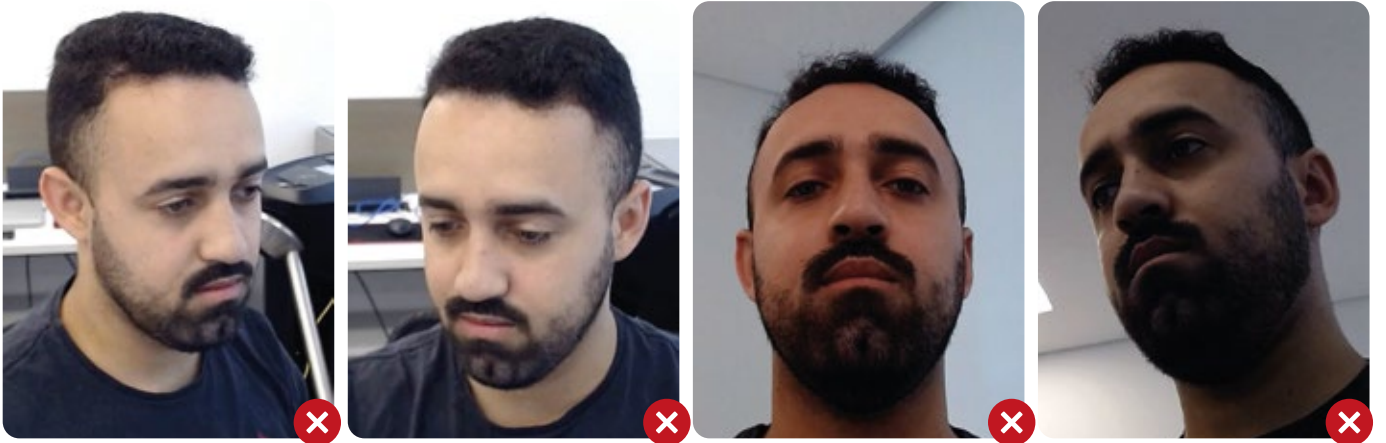


ANGLES

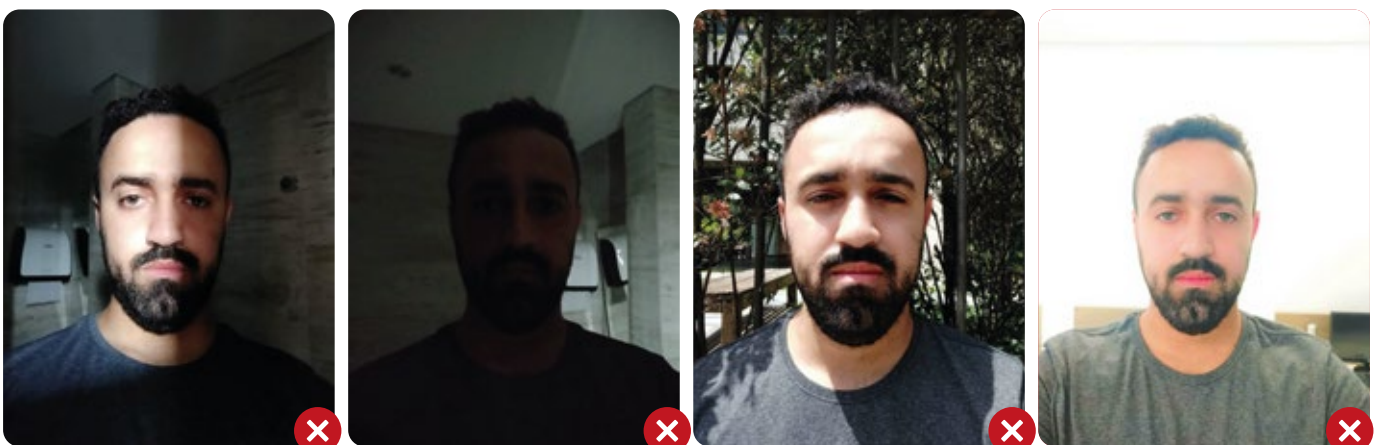
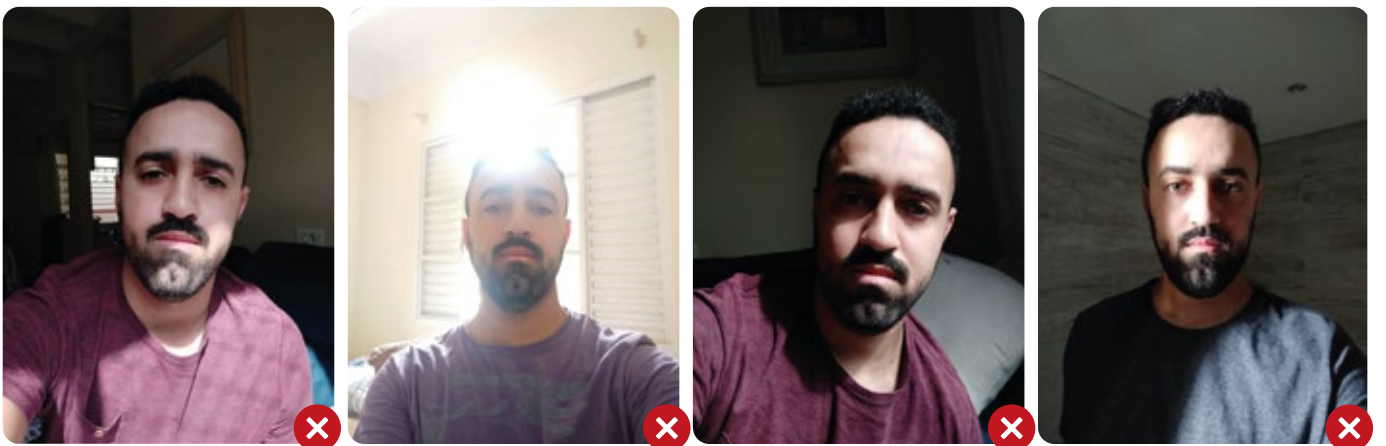


Control iD

Examples of incorrect photos



BRIGHTNESS



Control iD

Examples of incorrect photos

BACKGROUND EFFECTS



FILTERS

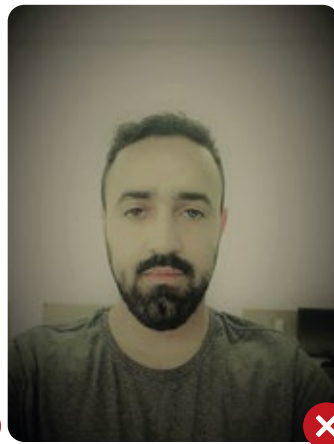
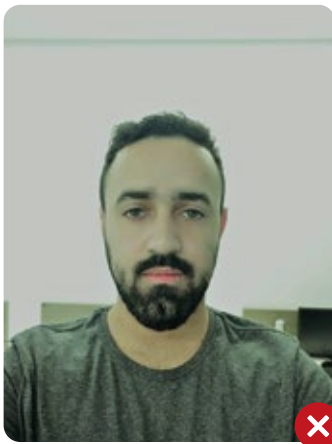
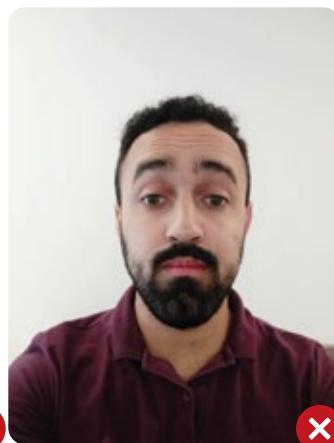


IMAGE QUALITY



Examples of incorrect photos

FACIAL EXPRESSIONS



ACCESSORIES

