Face Detection/Recognition:

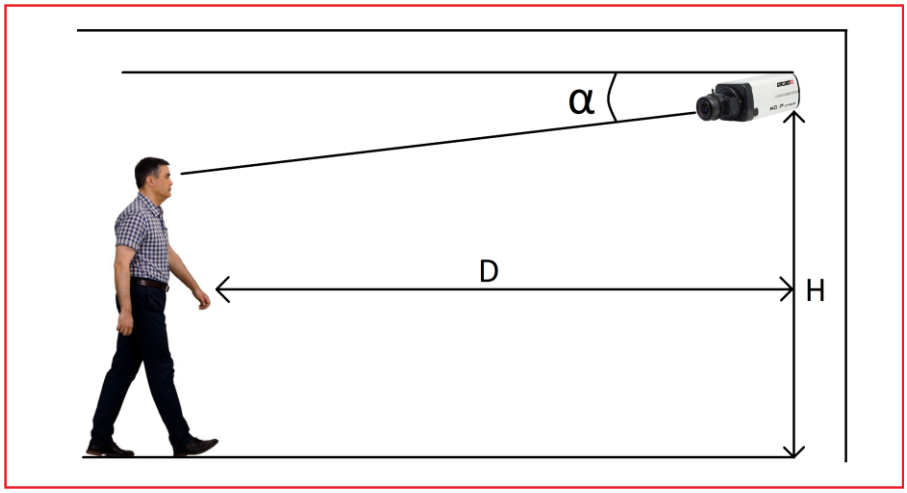
The Face Recognition platform is based on 2 components:

1) Analytics camera with “Face Detection”.
2) Recording device with "Face Recognition".

The face recognition allows to easily detect and recognize a person in the scene within a defined area. The recognition rate can be up to 98% if the distance between two pupils is greater than 20 pixels. A maximum of 10,000 face images can be stored in the NVR's face database. The NVR supports several triggers and responses after detection/recognition.

Configuration requirements

1) **Direction:** The camera should be installed in front of the walking lane and capture the face straight front.
2) **Light sources:** bright and stable light sources are required. Faces must be properly lit.
3) **Visible area:** All the face should be visible in the frame
4) **Camera angle:** camera angle from the ceiling (α) should be lower or equal to 15°
5) **Camera height:** Height (H) should be 2.0~3.5m according to the lens focal length and other requirements.
6) **Face Position:** Face angle from the camera (Left/Right) should be less than 30°. Pitch angle (Up/Down) should be less than 20°
7) **Night Mode:** B&W recognition will be supported in Ossia v1.4.1. In general, the B&W recognition rate is 20% lower than daytime.



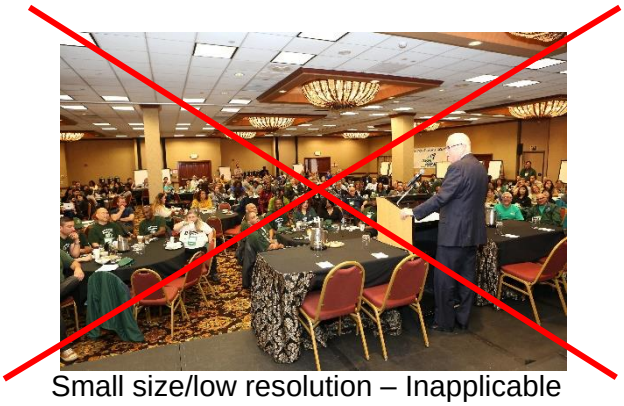
Factors Reducing Recognition Factors:

1) **Obstructed Face Features:** Faces with covered features or people wearing sunglasses, hats and masks will result in poor recognition, if any.
2) **Low Resolution:** Low Resolution faces reduces the algorithm efficiency and therefore the recognition accuracy.
3) **Low Brightness:** Dark scene/Face features dramatically reduces the recognition efficiency. If needed. Use BLC/HLC/HWDR in order to improve the image.
4) **Face Angle:** Face should be straight forward to the camera. Any rotation or tilt reduces recognition efficiency.

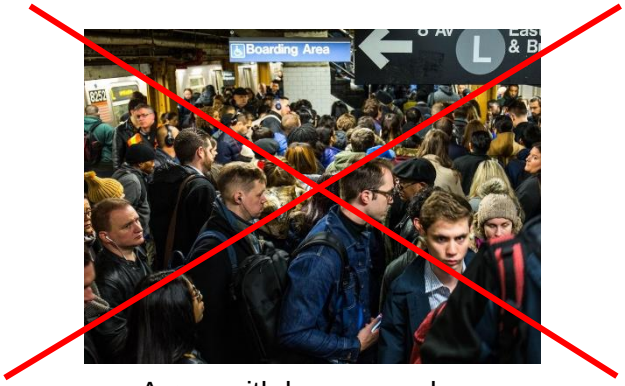
Inapplicable Scenes

1. Dark/Backlit Scene
2. Scene with small size/low resolution faces
3. Areas with large crowds

Dark/Backlit Scene – Inapplicable



Small size/low resolution – Inapplicable



Areas with large crowds

Proper installation.