VISION FOR IDENTIFICATION

WHAT ARE THE REQUIREMENTS FOR A PERFECT WORKING BIOMETRIC FACIAL RECOGNITION?

A safe and well-functioning person identification at a self-service kiosk or a gate should be well planned:

• In a flexible system it may happen that People are very close to the camera which could be a problem because the person sizes vary between 1.2m to 2.2m.

If a person has a distance of only 0.5m to the camera, the viewing area is only around 0,5 m, which means, the camera has to be moved in height, more than one camera is needed, or the camera has to be tilted.

• Kiosks or Gates can stand in very different positions in a room. (dark corner or, for example, directly in front of or next to a glass front). For a safe biometric face recognition, good and even illuminated photos are needed.

This requires not only a very good camera but also the possibility of a controlled illumination from the front.

You always have to expect that other people are very close behind or next to the person who
operates the kiosk or gate.

In order to avoid confusion with people standing nearby or directly behind a person, a built-in distance and position measurement is needed.

 What about the abuse of a Gate or kiosk? Keep in mind that a normal camera can not distinguish between a real face or a face image held in front of the camera. (on paper, T-shirt, tablet or SmartPhone) You can easily outsmart a kiosk or confuse it if you only wear a T-shirt with the image of your favorite Popstar.

In order to prevent fraud or accidental T-shirt images from making wrong decisions, a clear distinction from a real face is absolutely necessary.

 According to experience, many people are overwhelmed to read instructions on signs or even instructions on the screen.

Systems should be completely intuitive and geared to the normal behavior of individuals. (For example, a sudden blinking point generates curiosity and automatically directs one's gaze in that direction). Images should be captured as part of the normal process in good quality without special requests to stand still. This requires a very fast system that reacts before people become confused because they think they have done something wrong.

MODI HAS DEVELOPED A COMPACT ALL-IN-ONE CAMERA ACQUISITION SYSTEM TO MEET THESE DIVERSE NEEDS IN THE BEST POSSIBLE WAY.



- In order to cover a person size between 1.2m and 2.2m, the entire camera bar, including the lighting units can be swiveled with the **"Tilting Unit**".
- In addition to an excellent automatic exposure control of the "Color Camera", the adjustable "Flash Light" guarantees excellent face shots even under worst lighting conditions and direct sunlight influences.
- The system always captures the face of the person which stands directly in front of the kiosk or gate, even if other people are directly behind or next to it. This is done by the 3D footage of the "Infrared Stereo Camera" in conjunction with the "IR Pointbeamer". Out of these data, analysis software calculates the positions and distances of each face within a few milliseconds.
- Fraud attempts with pictures and T-shirt imprints can not deceive the system because the 3D recordings of the **"IR stereo camera"** makes a clear distinction to the real face possible.
- Intuitive People Steering became a reality through great tolerance of the face position, on the move, extremely fast response times and trifles such as the **"Color Signal Light"** to get attention for the correct line of sight.

OWN ELECTRONICS FOR THE SOLUTION FROM A SINGLE SOURCE AND FASTEST RESPONSE TIMES.



With the so-called FaceBar, MODI has created an **"all-in-one"** image capture solution. This incudes all the experience of 12 years with camera-based identification projects.

The FaceBar also includes the microprocessor-based electronics which is developed by MODI. This ensures the higher-level control of all the individual components. In addition the direct electrical connection for opening or closing a door, connection of external signal lamps or horn is possible. Also the triggering of the camera detection can be done via external light barriers for example. Digital inputs and outputs allow easy coupling to the outside world without complex software extensions.

This makes the system the ideal solution to upgrade existing kiosks or access systems with biometric face recognition.



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