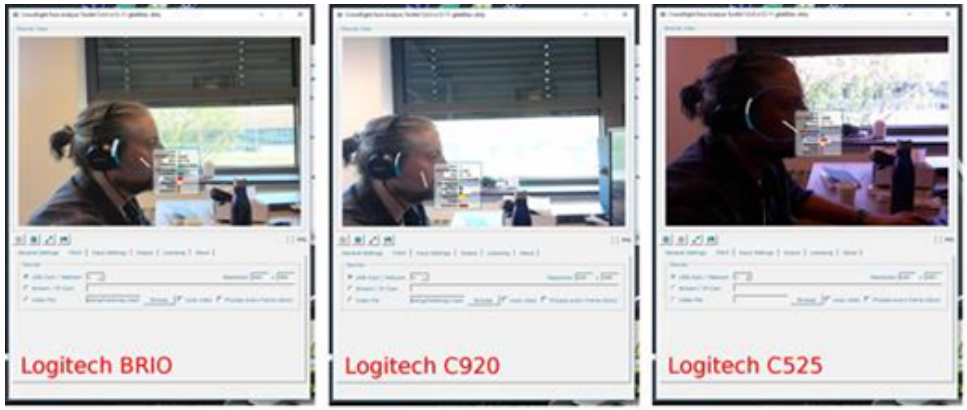
sightcorp

Camera Positioning Digital Signage/DOOH

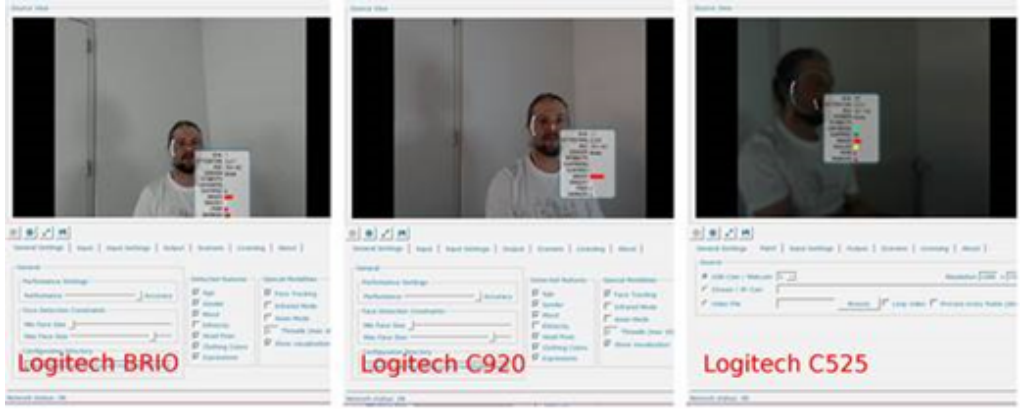
The camera that you choose can make a huge impact on the accuracy of your results depending on the environment that you want to analyze. Areas with a **strongly lit background** (overexposure), or areas with **low lighting** (underexposure) are common speedbumps in the Toolkit set up process.

To help you choose the ideal camera in these scenarios, we have tested a few popular options from Logitech - The **Logitech BRIO**, **Logitech C920**, and **Logitech C525** cameras, with the **BRIO** producing the best results as seen in the following images:

Strong back-light



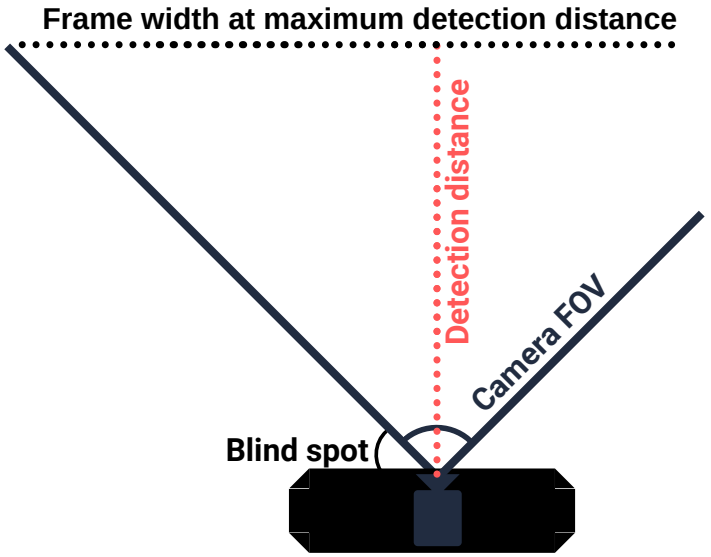
Poor lighting



Different cameras can produce different detection distances based on resolution and Field of View (FOV). Below you can see maximum detection distance for each camera and corresponding FOV.

Maximum detection distance refers to the distance from camera (vertical line) and maximum width refers to the size of detection area (horizontal line).

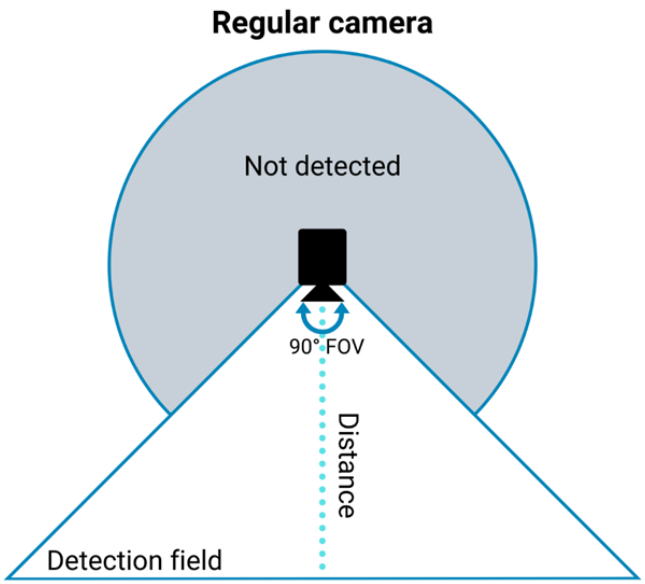
Camera	FOV	Max Distance	Max Width
UP HD	95°	6.5 m	14.2 m
Logitech C920	90°	6 m	12 m
Logitech BRIO 4K	82°	5.5 m	9.6 m
Axis FA4115 Dome Sensor Unit	55°	9.5 m	9.9 m
Axis FA4115 Dome Sensor Unit	99°	5 m	11.7 m

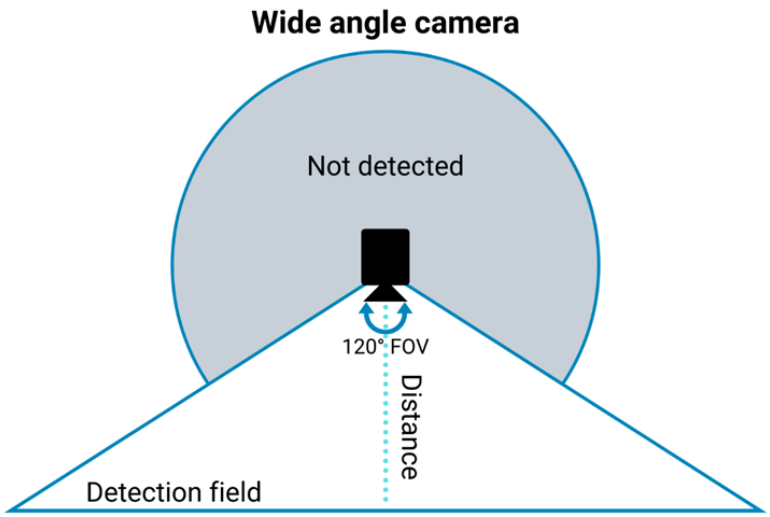


NOTE: The above tests were performed on live video using 1920x1080 resolution running on UP Squared with Intel ATOM x7-E3950 processor.

When selecting a USB camera for your digital signage, be mindful of the Field of View (FOV) capabilities. A narrower FOV of the camera results in a **longer detection distance** while a larger FOV results in **shorter detection distance** (see below).

This means that with a wide lens camera, you will only be able to detect faces at up to 5m whereas with a regular camera this can go up to 10m.



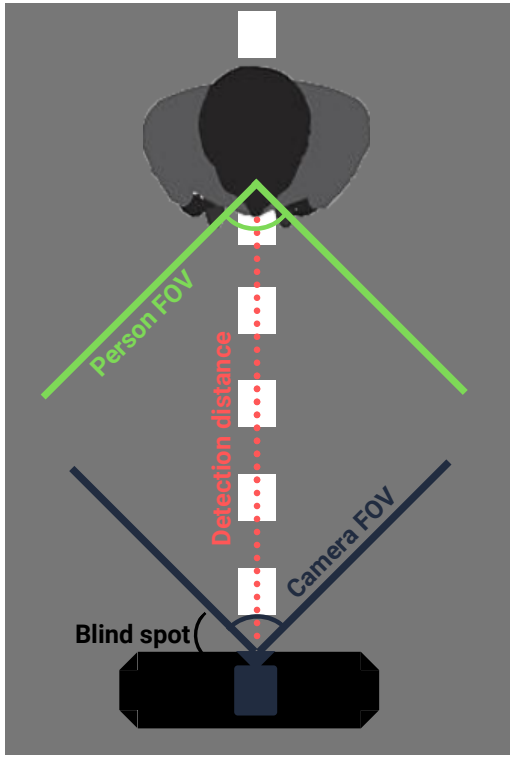


See more camera benchmarks

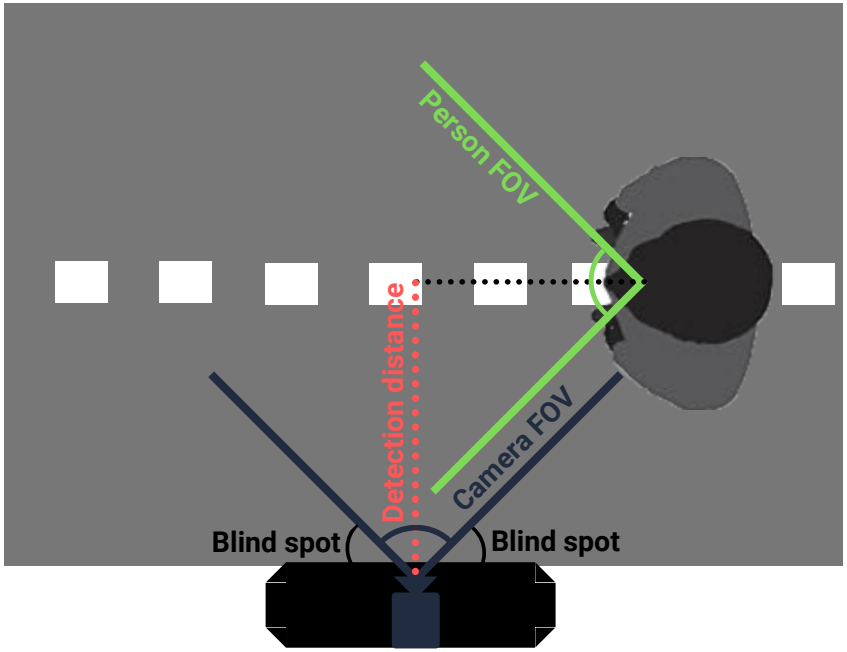
Digital Signage Scenarios

For digital signage applications, the camera is usually placed on the top of a screen which is placed more or less at the **eye level** of consumers. This is also the ideal scenario for our face analysis software. There are two general scenarios; people walking towards a screen and people walking past a screen.

Scenario 1



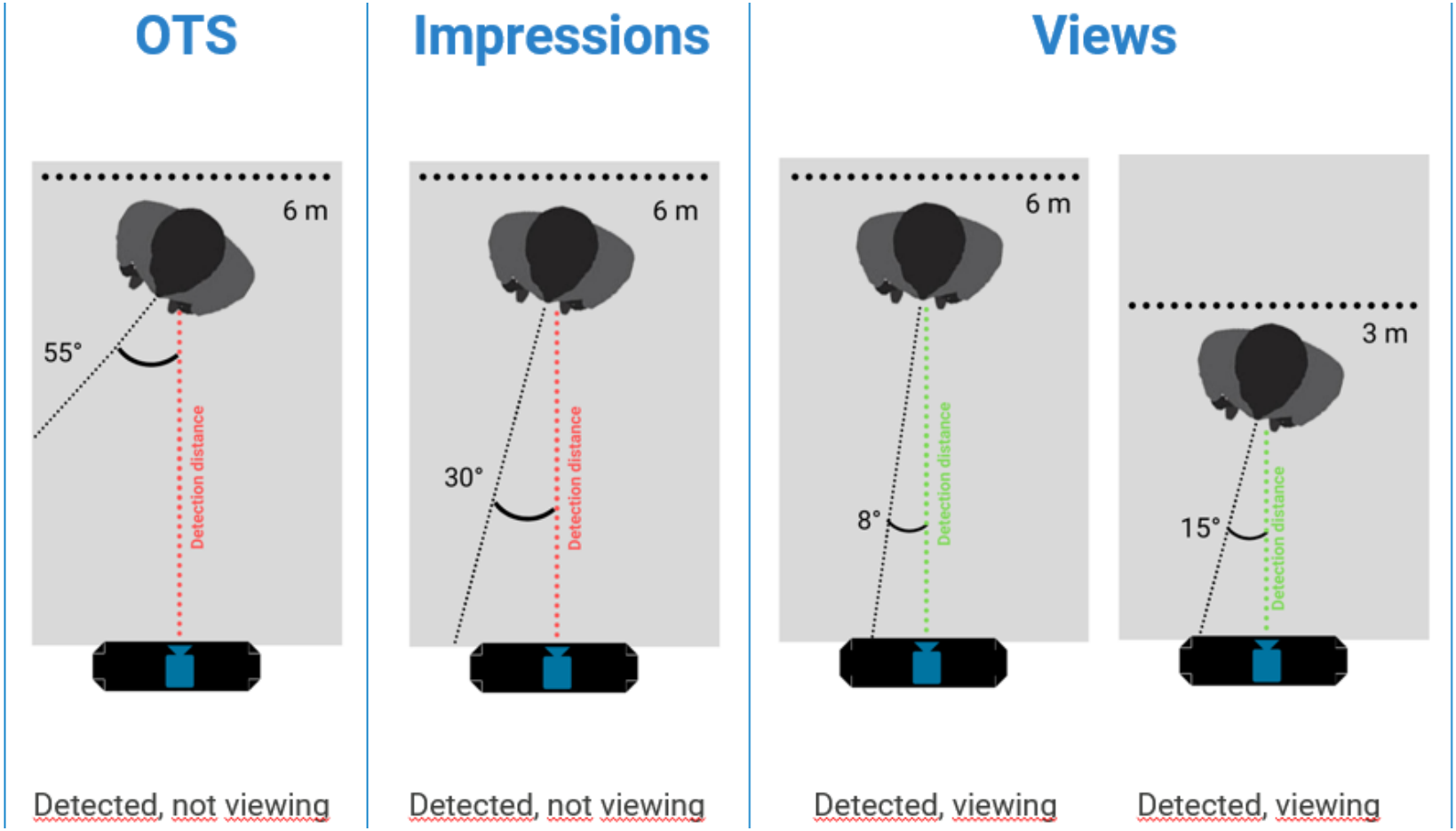
Scenario 2



Attention tracking for Digital Signage explained

In order to count the number of views and measure their attention time, we have developed a **dynamic function** that adjusts the 'Viewing' angle based on the distance from the camera rather than using a hard coded threshold for all detections.

This results in much higher accuracy for **'People count', 'Viewer count'** and **'Impressions count' metrics**, which all crucial for the Digital Signage industry.



There are many different camera types on the market that work with the Toolkit, but to make your decision easier, below is a list with a few preferred models per industry that we and our clients use frequently:

Digital Signage:

Logitech HD Pro Webcam C920

Logitech webcam BRIO 4K Ultra-HD

UP HD camera

ELP WDR Dual Lens 1080P USB Camera

DOOH:

AXIS F Series cameras

AXIS F1005-E (outdoor)

AXIS F1015

Hikvision Covert Network Camera

Retail:

AXIS FA Series cameras

AXIS FA4115 Dome

Hikvision Pro Series cameras

CLICK HERE for camera benchmarks