3. Detecting face size & position (auto-capture)

The following procedure explains how to utilize the FaceDetector library in order to detect the best possible moment for capturing the facial image of the user from the video stream.

> 💡 The following example implies that you have previously been acquainted with the **Working with Camera Input** & **Capturing a Face Image**.

First we need to include the FaceAPI and FaceDetector scripts:

```
<script src="js/face-api.min.js"></script>
<script src="js/facedetector.js"></script>
```

Now we can instantiate the detector class, bind it to video, and attach the listeners so we could detect events that are fired from the class:

```
var video = document.getElementById('video')
var framerate = 150

var detector = new FaceDetector( video, framerate )

detector.addEventListener( 'ready', onDetectorReady )
detector.addEventListener( 'face', onFaceDetection )
detector.addEventListener( 'bounds', onBoundsDetection )

detector.start(); // starts the detection process
```

Then we define all the needed functions to capture and react to events and communicate the results to the end user in order to guide them in positioning their face in the best moment for capturing the image:

```
var w = video.videoWidth
var h = video.videoHeight
var scale = 0.5
var isPresent
var inPlace

function onDetectionReady()
{
  // here you can update your UI
}

function onFaceDetection( event )
{
  isPresent = event.isPresent
  if( !event.isPresent )
    console.log( "Please place your face in front of the camera" )
}

function onDetectionBounds( event )
{
  inPlace = false
  let tolerance = 15 / scale

  if( w / 2 + tolerance < event.x * 1.25 + event.width * 0.75 / 2 )
    console.log('Please move more to the Right')
  else if( w / 2 - tolerance > event.x * 1.25 + event.width * 0.75 / 2 )
    console.log('Please move more to the Left')
  else if( h / 2 + tolerance < event.y + event.height * 0.75 / 2 )
    console.log('Please raise yourself more Up')
  else if( h / 2 - tolerance > event.y + event.height * 0.75 / 2 )
    console.log('Please lower yourself more Down')
  else {
    var closeness = false
    if( w >= h ) closeness = ( event.height > h * 0.5 ) ? true : false
    else closeness = ( event.width > w * 0.5 ) ? true : false

    if( !closeness )
      console.log('Please come closer to camera')
    else
      inPlace = true
      // auto-capture the image from the video
  }
}
```

When you're ready to capture the image, it's a good practice to stop and destroy the detector instance in order to optimize the performance of your app:

```
// if all conditions are met
if( ... ) {
  detector.stop()
```

```
    detector.destroy()
    // perform image capture after this
}
```