

Mimic Game

This project allows up to get familiar with Afectiva API by developing basic feature such as displaying feature points used to analyze expressions and show dominar emoji that summarize the most probably emotion of that person.

Display Feature Points

The first function that we have to complete is display features points

It received 3 variables: canvas, img and face.

- 1) *canvas*: is our container to draw. I choose yellow as the color for the points.
- 2) *img*: is the image itself passed to the function. in this case we are not doing anything.
- 3) *face*: is the object that contains all the results of the Afectiva API process, including the feature point locations for the given image and the relevant values such as the dominant emoji.

I loop over those points and using the canvas context draw them using the feature point x and y.

Show Dominant Emoji

This function has the same signature.

In this case i use the font Verdana size 48px to render the emoji to the screen.

I choose one particular point (index 10). I render the emoji as text on that particular x, y coordinate.

The Game

Global Variables

I used updates, currentEmoji, score and total;

- *updates*: count the numbers of times the function it's been called.
- *currentEmoji*: store the emoji displayed.
- *score*: number of successful matches.
- *total*: total of emojis displayed.

```
// Global Variables
var updates = 0;
var currentEmoji;
var score = 0;
var total = 0;
```

game

This is the main function

- Check if they are matching
- If the function loop over 100 times, I move on to the next emoji.
- update the score (even if no changes has happened)
- If the total emojis displayed are 10, I stop the game.

This function it's been called repeatedly by the event "onImageResultsSuccess".

I can probably use some timer instead of number of updates, but I think in this case seems to be working OK as there is a relationship between number of updates and time (refresh rate).

```
function game(face) {
  updates++;
  // Check if similar
  if (toUnicode(face.emojis.dominantEmoji) === currentEmoji) {
    score++;
    nextEmoji();
  }
  if (updates === 100) {
    // Set updates = 0
    updates = 0;
    // Define the next emoji
    nextEmoji();
  }
  // Update the score
  setScore(score, total);

  if (total === 10) {
    onStop();
  }
}
```

nextEmoji

Just randomly select another emoji from the list and update the total by one.

```
function nextEmoji() {  
  // Define the next emoji  
  currentEmoji = emojis[Math.floor(Math.random() *  
emojis.length)];  
  setTargetEmoji(currentEmoji);  
  total++;  
}
```


init

Reset score, total and number of updates. Display the new reseted score and called the nextEmoji function.


```
function init() {  
  total = 0;  
  score = 0;  
  updates = 0;  
  // Update the score  
  setScore(score, total);  
  // Set the next emoji  
  nextEmoji();  
}
```

Final Result

Mimic Me!
https://localhost:4443



Mimic Me!



Score: 1 / 7

Start
Stop
Reset

INSTRUCTIONS

- Press **Start** to initialize the detector.
- Your current emoji will be shown next to your head.
- Mimic each emoji being displayed to score a point!
- Press **Stop** to end the detector.
- Watch the tracking results and log messages for more information.

EMOTION TRACKING RESULTS

Timestamp: 46.31
Number of faces found: 1
Appearance: {"gender": "Male", "glasses": "No", "age": "55 - 64", "ethnicity": "Caucasian"}
Emotions: {"joy": 2, "sadness": 0, "disgust": 0, "contempt": 0, "anger": 0, "fear": 0, "surprise": 0, "valence": 25, "engagement": 86}
Expressions:
{"smile": 63, "innerBrowRaise": 0, "browRaise": 0, "browFurrow": 48, "noseWrinkle": 0, "upperLipRaise": 0, "lipCornerDepressor": 0, "chinRaise": 61, "lipPucker": 6, "lipPress": 0, "lipSuck": 0, "mouthOpen": 0, "smirk": 0, "eyeClosure": 0, "attention": 97, "lidTighten": 0, "jawDrop": 0, "dimpler": 0, "eyeWiden": 0, "cheekRaise": 0, "lipStretch": 0}
Emoji: 😞

DETECTOR LOG MSGS

Start button pressed
Webcam access allowed
The detector reports initialized