

```
OPENCV
import cv2

cap = cv2.VideoCapture(0) # open laptop camera

while True:
    ret, frame = cap.read()
    if not ret:
        break

    cv2.imshow("Webcam", frame)

    if cv2.waitKey(1) == ord('q'):
        break

cap.release()
cv2.destroyAllWindows()
```

```
DeepFace
from deepface import DeepFace

# frame comes from the webcam loop above
try:
    result = DeepFace.analyze(frame, actions=['emotion'], enforce_detection=False)
    print(result)
except:
    print("no face detected")
```

```
Emotion Code
emotion = result["dominant_emotion"]
confidence = result["emotion"][emotion] # number between 0–100
print("Emotion:", emotion, "Confidence:", confidence)
```

Interval for emotions

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interval = confidence / 100.0
print("Interval:", interval)
```

Emotion Mapping

```
mapping = {
    "happy": 1.0,
    "neutral": 0.5,
    "sad": 0.2
}

interval = mapping.get(emotion, 0.5) # default to 0.5 if unknown
print("Mapped Interval:", interval)
```

Text Output

```
import cv2
from deepface import DeepFace
import numpy as np

cap = cv2.VideoCapture(0)

while True:
    ret, frame = cap.read()
    if not ret:
        break

    # analyze emotion
    try:
        result = DeepFace.analyze(frame, actions=['emotion'], enforce_detection=False)
        emotion = result["dominant_emotion"]
        message = f"You are {emotion}"
    except:
        message = "No face detected"

    # create a blank text window (black background)
    text_window = np.zeros((200, 600, 3), dtype=np.uint8)

    # put text inside the blank window
    cv2.putText(
        text_window,
        message,
        (20, 120),
        cv2.FONT_HERSHEY_SIMPLEX,
        1,
```

```
(255, 255, 255),  
    2  
)  
  
# show two windows: webcam + text  
cv2.imshow("Vibey Camera", frame)  
cv2.imshow("Emotion Result", text_window)  
  
if cv2.waitKey(1) == ord('q'):  
    break  
  
cap.release()  
cv2.destroyAllWindows()
```