







## EYE DETECTION LOGIC



Image □ Input to Detection Pipeline

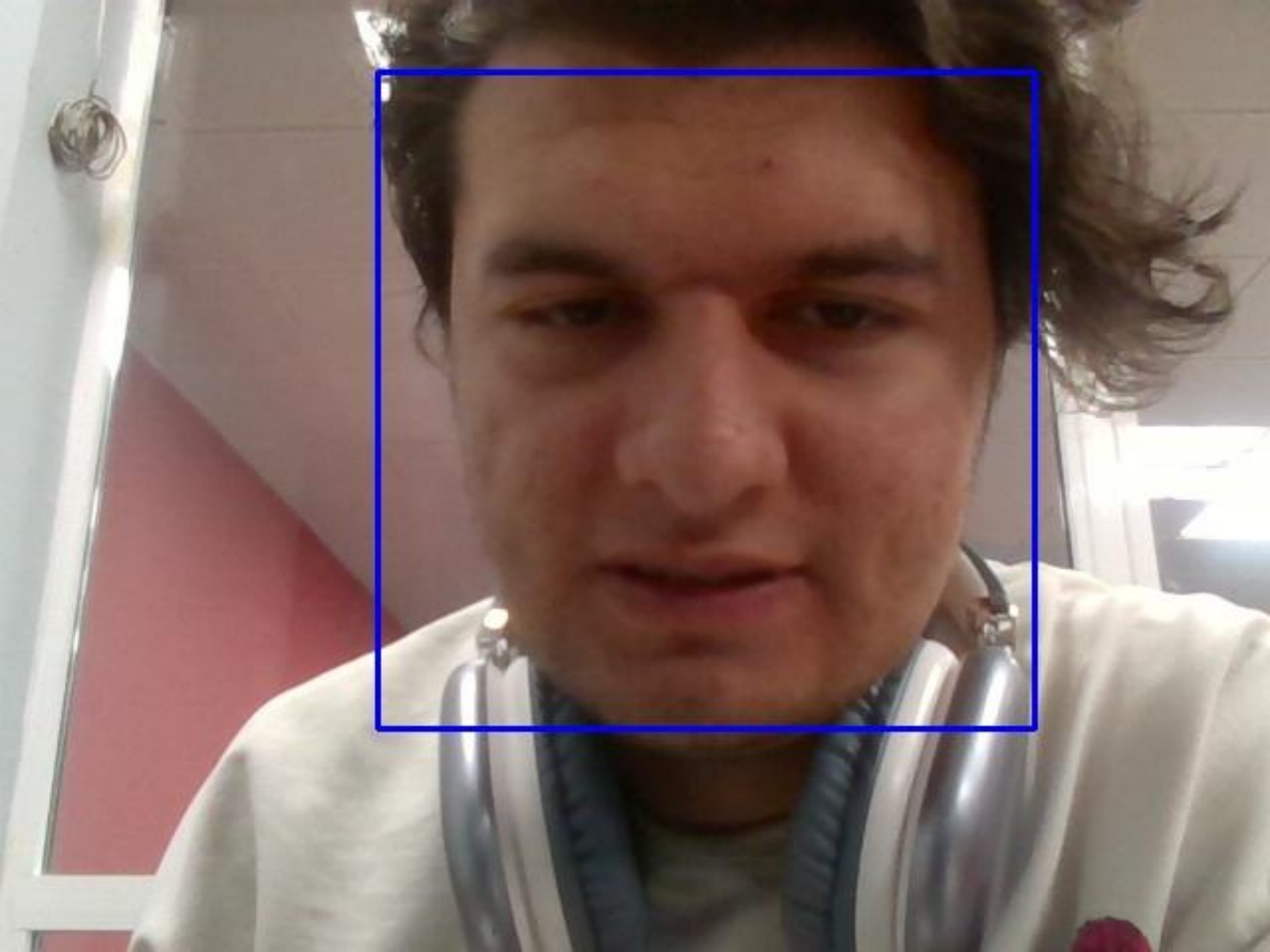
Python Code □ `eye_cascade.detectMultiScale(roi_gray, 1.1, 10)`

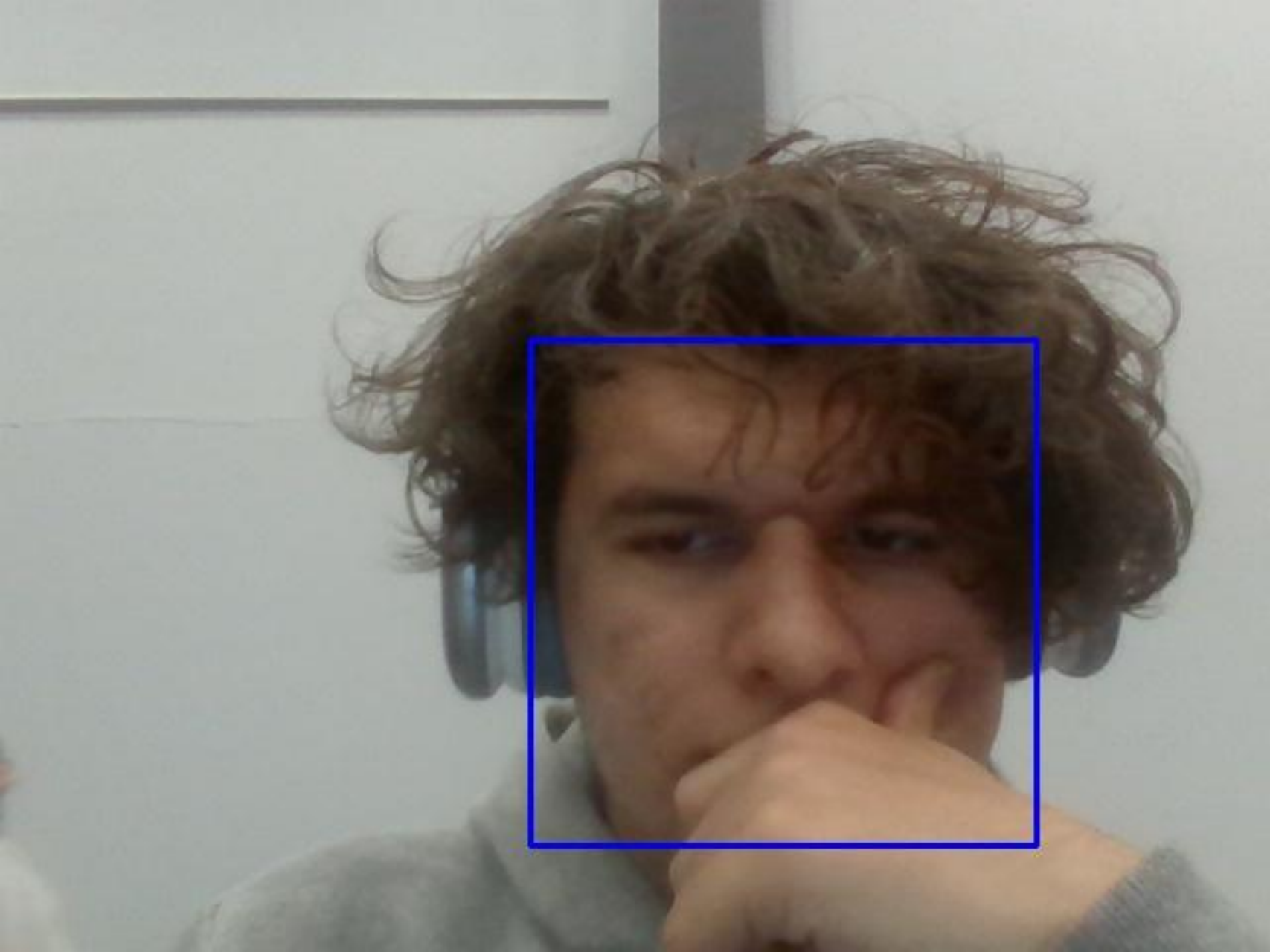
C Code □ `cvHaarDetectObjects(eye ROI, cascade, ...)`

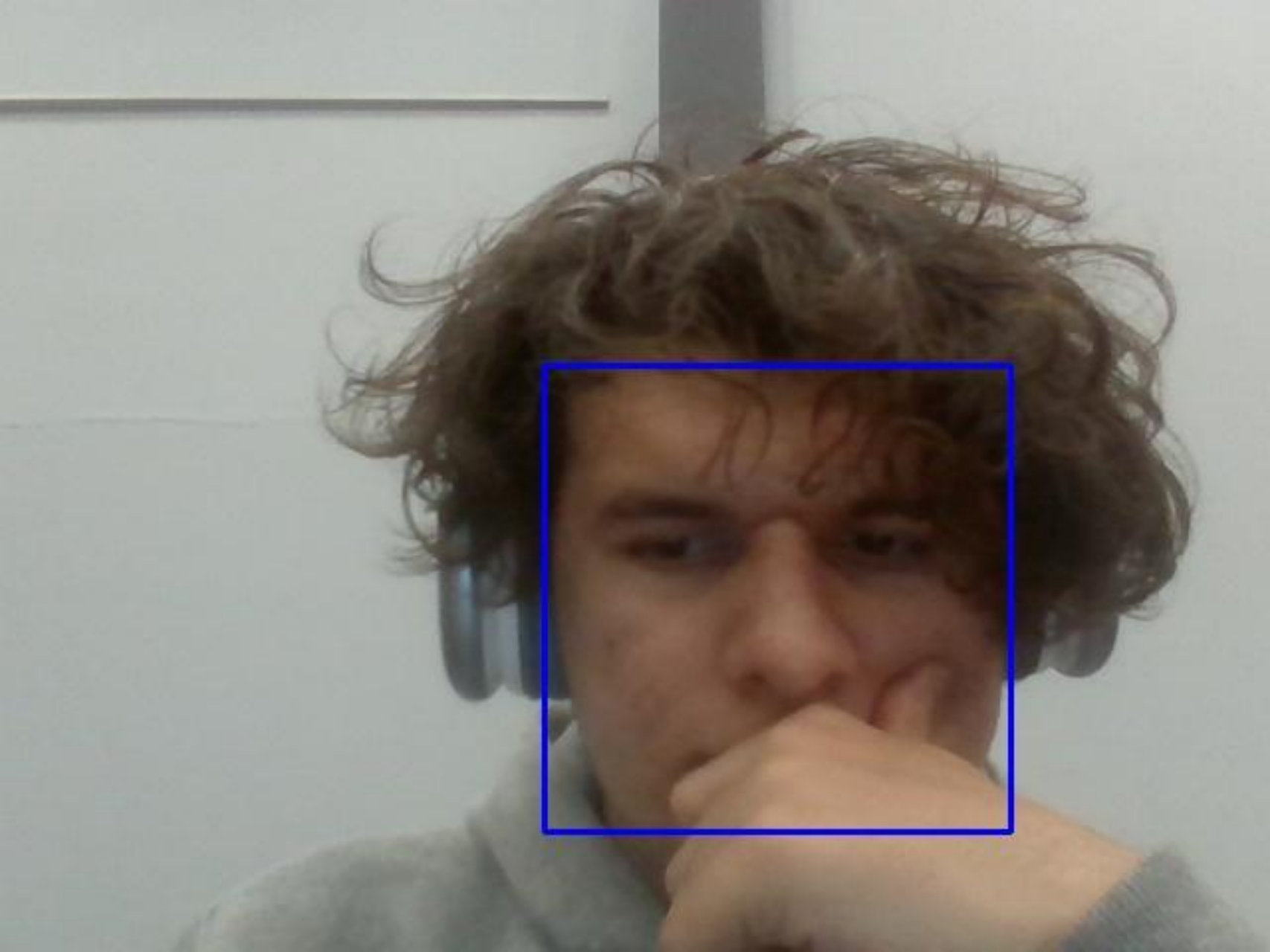
Assembly □ SCAN ROI -> CMP brightness -> JMP if shape

Machine Code □ 3C 5F | 7E 04 | EB 02 ...

Output □ Detected eye: ex, ey, ew, eh







## FACE DETECTION LOGIC



Image □ Input to Detection Pipeline

Python Code □ `face_cascade.detectMultiScale(gray, 1.3, 5)`

C Code □ `cvHaarDetectObjects(gray, cascade, ...)`

Assembly □ LOOP -> CMP pixel intensity -> JMP

Machine Code □ 3C 7F | 7F 05 | EB 03 ...

Output □ Detected face: x, y, width, height









## MOUTH DETECTION LOGIC



Image □ Input to Detection Pipeline

Python Code □ `mouth_cascade.detectMultiScale(roi_gray, 1.5, 11)`

C Code □ `cvHaarDetectObjects(mouth ROI, ...)`

Assembly □ LOOP over lower half -> CMP -> JMP

Machine Code □ `3C 60 | 7C 03 | EB 01 ...`

Output □ Detected mouth: mx, my, mw, mh