## **Annotation Instructions**

#### Summary

The task is to label all of the visible license plates, vehicles, humans and human faces.

- 1. When annotating a **LICENSE\_PLATE**, make sure:
  - → Add a bounding box around LICENSE\_PLATE that is at least 20 pixels wide and at least 50% visible. This applies even to those license plates with no decipherable text.
  - → The *Occlusion* attribute labels the visibility of the plate.
  - → The *PlateReadable* attribute indicates if all characters on the license plate are identifiable.
- 2. When annotating a **VEHICLE**, make sure to:
  - → Add a bounding box around VEHICLEs with a minimum size of 30 pixels diagonal.
  - → Select the correct vehicle subclass.
  - → Only draw the box over vehicles that have one side over **50% visible**.
  - ◆ In other words, annotate if at least one of the sides (back, front, passenger side of the vehicle) is 50 percent visible or more. Examples:
    - Annotate if the rear end of the car (trunk) is at least 50% visible.
    - Annotate If the front end of the car (hood) is at least 50% visible.
  - → Select multiple colors if the vehicle is multi-colored.
- 3. When annotating a **HUMAN\_BODY**, make sure you:
  - → Add a bounding box around human bodies with a minimum size of 30 pixels diagonal.
  - → Annotate the human body:
    - when both the body (torso) and the legs/leg are visible (more than 80%), if the head is not visible (either occluded or out of Field Of View).
    - when the shoulder(s) and partial arm/arms are also visible, if the head is visible
  - → Only annotate the visible portions of the body. Do not annotate the occluded parts of the human body.
- 4. When annotating a **HUMAN\_FACE**, make sure you:
  - → Add a bounding box around human faces with a minimum size of **20 pixels wide**.
  - → Add a bounding box only when:
    - The human face has at least one eye (including glasses/sunglasses), half a nose, and half a mouth visible, if the human face has no mask/coverings.
    - The human face has at least one facial feature visible (including glasses/sunglasses), if the face has a mask/covering. The mask/covering can be covering the mouth, nose, or eye.
  - → Draw rectangles very tight in size with respect to the face, not the head.
  - → Leave out hat, hair, ears as much as possible while retaining the entire face.
  - → Have the bottom of the box touch the chin.
  - → Annotate human faces in an enclosed vehicle, when the face fits these criteria above.

# HUMAN\_BODY

Description	Example
The head of this human is not in the field of view and his body is more than 80% visible so this human should be annotated.	CORRECT!
This human should be annotated, since his head, shoulders and arms are visible.  N.B: Only include the visible portions of the person in the box. As you see on the right, the legs that are occluded by the table are not boxed since the legs are not visible, so this is correct.	CHIP!
These should not be annotated since the head of the human is not in the field of view and his body is less than 80% visible.	
The example on the right should not be annotated since the person's head is in the field of view and her arm(s) are not visible.	WRONGI

# HUMAN\_FACE

### Bounding Box Examples

Description	Example
Too big  (Extended below the chin and covering the head where we are looking for just the face and facial landmarks)	TOO BIG
Too small  (should be lower to the chin and extended out closer to her right ear)	TOO SMALL
Perfect	

### FaceQuality: Poor / Medium / Good

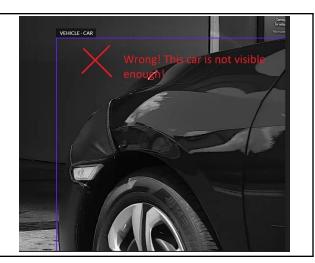
The requirement is only to annotate HUMAN\_FACE with a visible face. A face is visible if at least one eye, half the nose, and half the mouth are visible.

Description	Example
<ul> <li>1 = Poor FaceQuality</li> <li>A face is visible if at least one eye, half the nose, and half the mouth are visible.</li> <li>Even though the face is in the view of the camera, the face is not quite visible and blurry either through low resolution or motion blur.</li> </ul>	
2 = Medium FaceQuality  The face is clearly visible, but the face is not frontal, that is the face is not directly facing the camera. Both eyes, the nose, and the mouth have to be visible.	
3 = Good FaceQuality  Good image quality, frontal, no occlusion.  The face is clear and pointing straight at the camera.  Two Eyes are clearly visible and straight to the camera such that both eyes are clearly visible Both eyes, the nose, and the mouth have to be visible.	

## VEHICLE

Description	Example
This truck should be annotated. Only the side is visible, and since the side is more than 50 percent visible, this vehicle should be annotated.	Correct
This car should be annotated. The side of the car is more than 50% visible, therefore this car should be annotated	
This car should be annotated. Since the back is visible and is around 50 percent visible, this should be annotated.	Correct!

This car should not be annotated. Since only the side of the car is visible and the side of the car is less than 50 percent visible this car should not be annotated.



#### <u>N.B</u>:



For dark scenes like the one above, we would like the annotators to change the brightness and the contrast to be able to see the vehicles. Once the change in brightness and/or in contrast is made :

- If a vehicle satisfies the annotation requirements for VEHICLE, the vehicle should be annotated.
- If a vehicle is not visible no matter the brightness and/or contrast, the vehicle shouldn't be annotated.