

Stop Sign Annotation Task Guidelines

Goal:

This is a video annotation task for Nexar's AI-powered dashcam system, designed to improve road safety by helping machine learning models understand driver behavior - specifically, how drivers interact with stop signs.

Stop signs are among the most common points of risk on the road. Drivers don't always follow the rules, which increases the likelihood of accidents. Your annotations will help the model learn what safe and unsafe behaviors around stop signs look like.

Instructions:

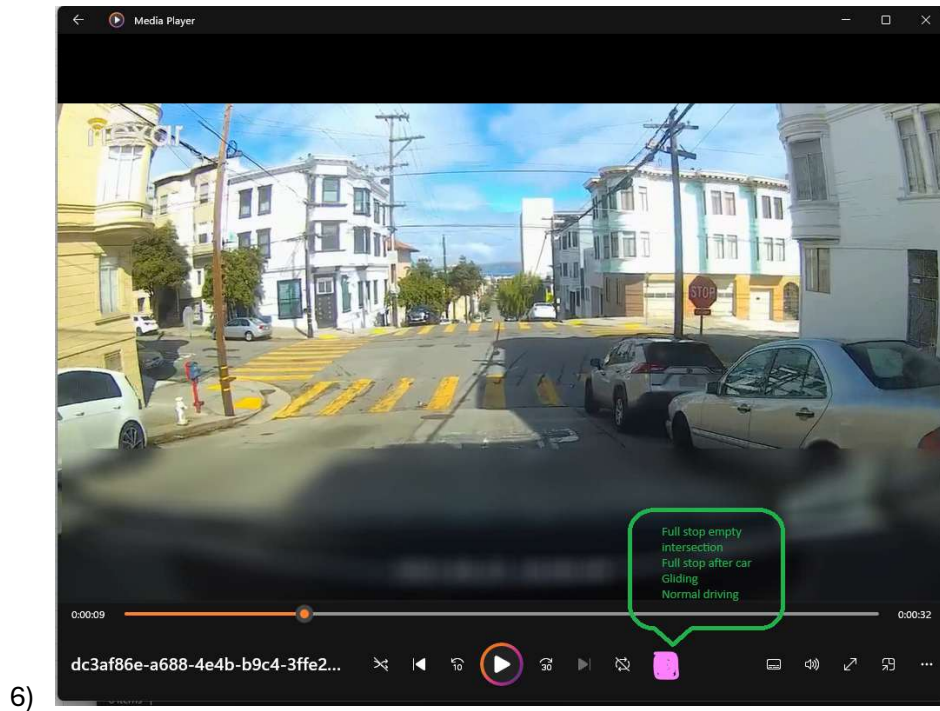
You will receive short 30-40 second video clips that were automatically flagged as having potential stop sign driver interactions.

Your objective:

For each clip, label the portion of the video where the driver interacts with the stop sign, and classify the type of interaction.

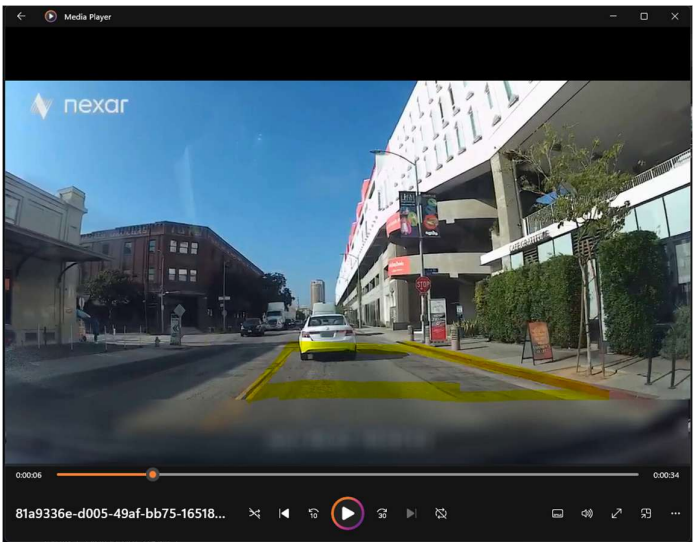
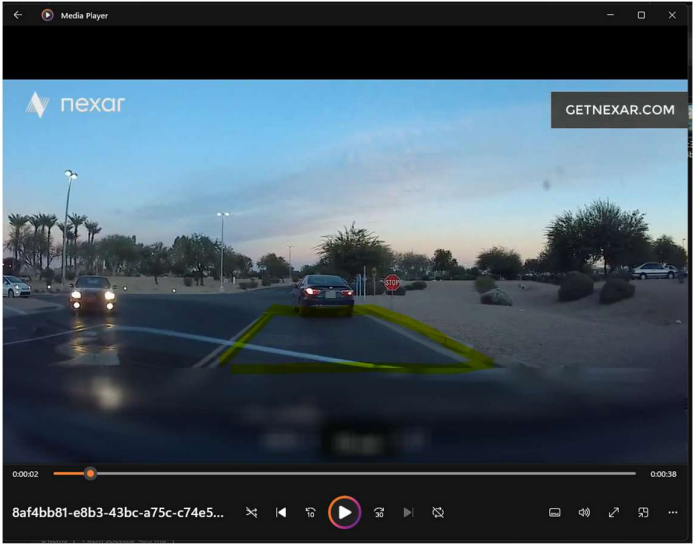
How to Label an Event

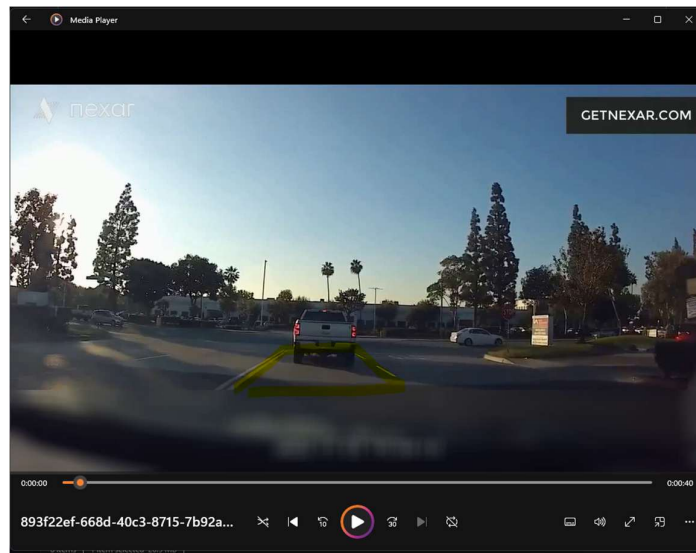
- 1) Pause the video at the starting point of the interaction.
- 2) Click the pink button to start the label.
- 3) Select the correct interaction type.
- 4) Click the pink button again to end the label.
- 5) See screenshot:



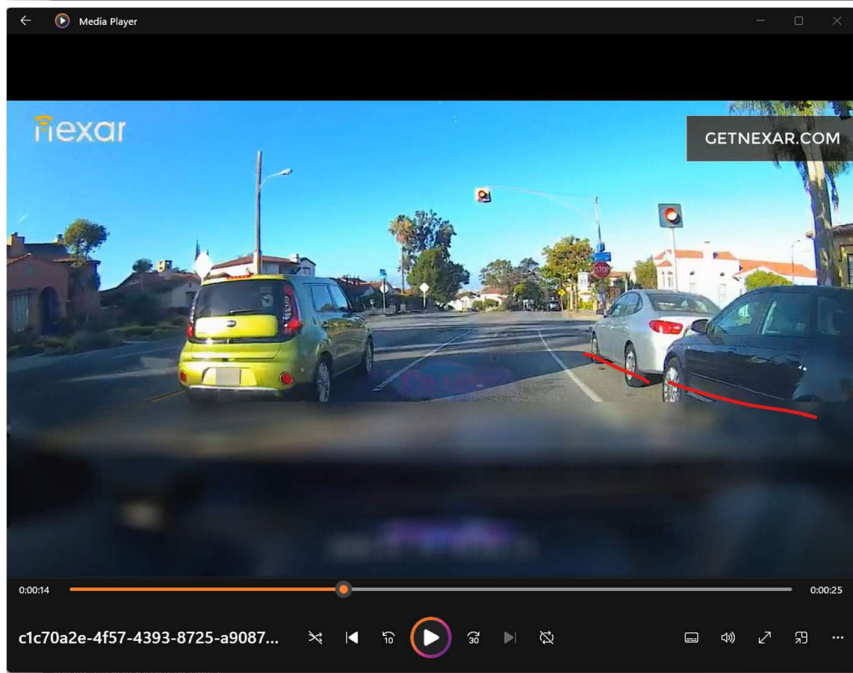
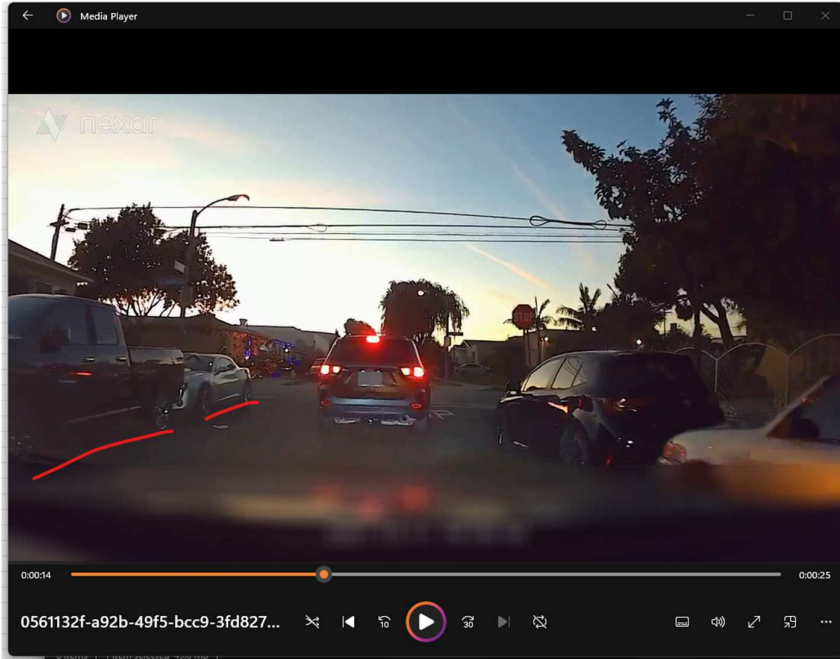
Timeframe definitions:

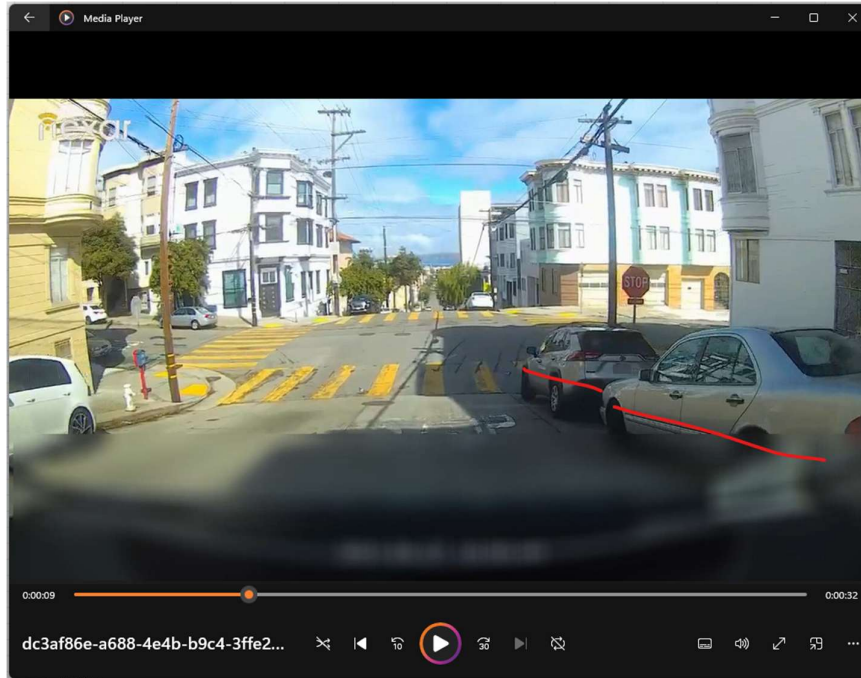
- Start of interaction – ~15-20 meters before the stop sign. Since you can't measure distance directly:
 - For non-urban roads or city streets without parked cars on the edges, pause when the lane edges form a typical trapezoid shape.
 - Examples:





- For residential streets with parked cars, pause when the back edge of the second car from the intersection hits the edge of the visible windshield.
- Example:





- End of stop sign interaction –

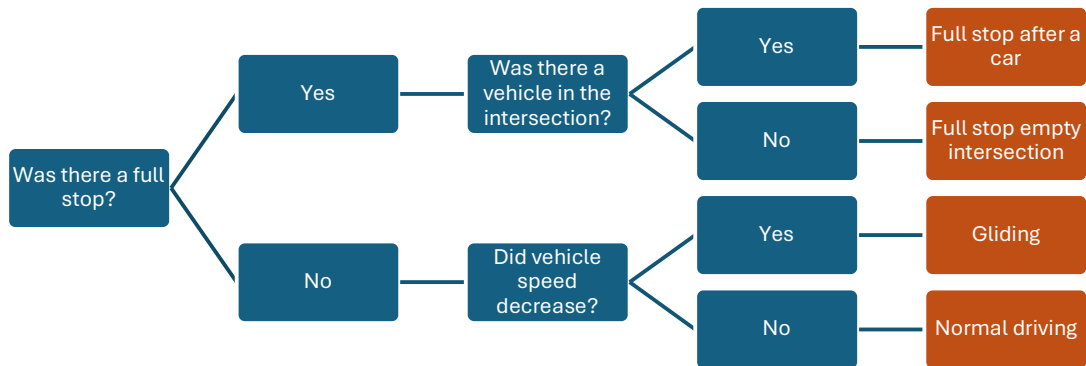
- The goal is to pinpoint the exact time where the driver is no longer “impacted” by the stop sign.
- Pause the video once the stop sign is not visible anymore and the car is in motion
- Example:



Interaction type definitions:

- Full stop empty intersection – the driver stopped fully next to the stop sign, before entering the intersection, no car ahead.
 - Identify by:
 - No car in front
 - Motion stops completely for at least a moment
 - Example: see files " 3e120c7f-d830-4ee9-b9fb-f3e2781b8e7e.mp4" + " 81a9336e-d005-49af-bb75-165180205572.mp4"
- Full stop after a car – the driver stopped after a car at the stop sign before.
 - Identify by:
 - The back side of a car directly in front of the windshield
- Gliding – the driver slows down near the stop sign but doesn't fully stop.
 - Identify by:
 - Motion slows down before stop sign, accelerates immediately after stop sign
 - Example: see file " 8af4bb81-e8b3-43bc-a75c-c74e568336ae.mp4"
- Normal driving – driver barely slows or doesn't slow down at all near the stop sign.
 - Identify by no or almost no change of velocity
 - Example: see file " b68b2d97-c4f4-4d61-88e5-c5c7ef0ff000.mp4"

This visual explains the difference between the 4 types:



Edge cases/exceptions

- Accident at the intersection:
→Don't label. Note in the comments: "Crash occurred – send to crash labeling team."
- Unexpected behavior by another vehicle (e.g., car in front reverses or stops abruptly):
→Skip and comment: "Unclear behavior – send for review."
- Unsupported cases (e.g., dirt roads, stop signs not on a pole at right side of road):
→Skip and comment: "Not covered by guidelines."

Assumptions:

- There's no need to do object detection such as stop signs or cars, the objects are detected automatically (for simplicity)
- Events can be labeled with a starting and ending point with a "pause" button in Windows Media Player and a Paint-generated pink button

- The relevant event here is a bit before the stop sign (10-15 meters) and until the car is in the intersection – this is agreed upon with product/algo/anyone else who's involved.
- Cars crashing into each other is not driver behavior, therefore these types of events belong in a different task.
- Uncharacteristic behavior due to other drivers (such as a driver in front reversing) should probably be discussed with the product/algo team, so right now this is excluded from the task.

How these labels support model training

As the goal is to detect driver behavior, which is hard to define exactly, I had to choose a time frame that would be relatively easy to identify – I chose 15-20 meters before the junction and based on the provided examples I could define a simple framework on when to hit pause. My instructions are limited by the data I had available, I'm sure there are plenty of cases where these instructions do not work.

I chose to instruct the annotators to skip anything not covered by instructions as I'd rather rethink the labels when I can see the data than have bad labels that will later need to be fixed.

The labels chosen: based upon my worldly experience and the data I had available. The choice to split "Full stop" to 2 use cases (with and without a car in front) is because other cars heavily influence driver behavior, and for a car to be able to glide or drive normally there is probably no other vehicle affecting that decision (more things to be validated in more data), So labeling these events covers all the normal every day cases. I excluded uncharacteristic behaviors such as crashes and other drivers unexpectedly doing a reverse because I need to understand more about the model and the goals in order to determine what should be the taxonomy for these events. In the meantime I prefer to avoid noisy data.

All in all, the labels reflect the 4 everyday common cases, with a detailed definition, hopefully with enough data this should be able to teach the model these patterns.