

- Lidar and Camera data from 1000 segments(20s)
- 1000 Segments of 20s collected on 10Hz(2,00,000)Frames

Sensor Data:

- 1 mid range lidar
- 4 short range lidar
- 5 cameras
- Synch camera and lidar data
- Lidar to camera projections
- Sensor calibrations and vehicle pos

Label Data :

- 4 class - Vehicle, Pedestrians, Cyclists, Sign
- Labels for lidar data in 1000 segments
- 12M 3D bounding box - lidar
- 1.2M 2D bounding box - Camera

3D Lidar labels:

- The lidar labels are 3D 7-DOF bounding boxes
- Have 3D labels: vehicles, pedestrians, cyclists, signs.

2D Camera Labels:

- Camera labels are tight-fitting, axis-aligned 2D bounding boxes
- 2D labels: vehicles, pedestrians, cyclists

Coordinate Systems:

Global frame:

- The origin of this frame is set to the vehicle position when the vehicle starts. It is an 'East-North-Up' coordinate frame. 'Up(z)' is aligned with the gravity vector, positive upwards. 'East(x)' points directly east along the line of latitude. 'North(y)' points towards the north pole.

Vehicle frame

- The x-axis is positive forwards, y-axis is positive to the left, z-axis is positive upwards. A vehicle pose defines the transform from the vehicle frame to the global frame.

Sensor frames

- Each sensor comes with an extrinsic transform that defines the transform from the sensor frame to the vehicle frame.

Lidar Data

The dataset contains data from five lidars - one mid-range lidar (top) and four short-range lidars (front, side left, side right, and rear)

Camera Data

The dataset contains images from five cameras associated with five different directions. They are front, front left, front right, side left, and side right.