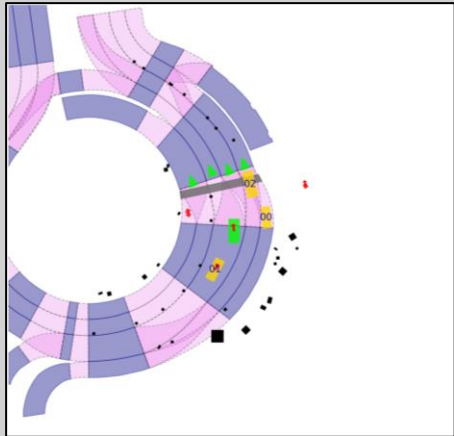**Scenario & Task Description**

*Ego-Centric BEV*

####Driving scenario description:
You are driving on a road with 5 lanes,..

####Available actions:
You are allowed to choose your longitudinal and lateral actions...

*Textual Description*

**Decision Agent for Multimodal Behaviors**

Large Multimodal Model

CoT Reasoning & Top-K Confidence Elicitation

<Reasoning> [Contextual Analysis]

<Reasoning> [Action Prioritization]

...

<Reasoning> [Decision Breakdown]

Response to user:####{'DL': 0.85, 'DR': 0.8, 'CL': 0.7}

*Decision*
*Confidence*

**Guided Trajectory Generation and Hierarchical Refinement Module**

Objective Creator

*Gradient-Free Diffusion-Based Generator*
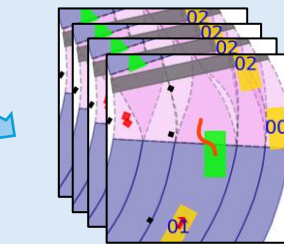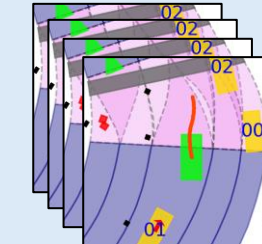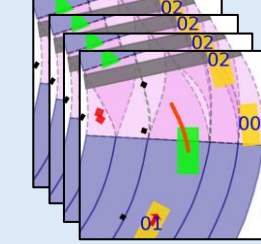
*Path Set of Decision 1*    *Path Set of Decision 2*    ...    *Path Set of Decision K*

*Decision:* DL
*Confidence:* 0.85

$$(X^k)^* = \text{argmax}\left(J^k(X_n^k)\right), k \in \{1, 2, \ldots, K\}$$

Confidence-Aware Decision Selector
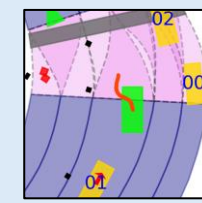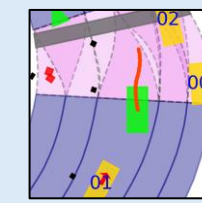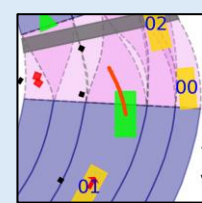
$(X^1)^*$    $(X^2)^*$  ...  $(X^K)^*$

*Candidate Decisions After First-Stage Refinement*

*Final Decision*

**Simulator**

BEV-Generator

Traffic Simu.

**Trajectory Follower**

Low-Level Controller