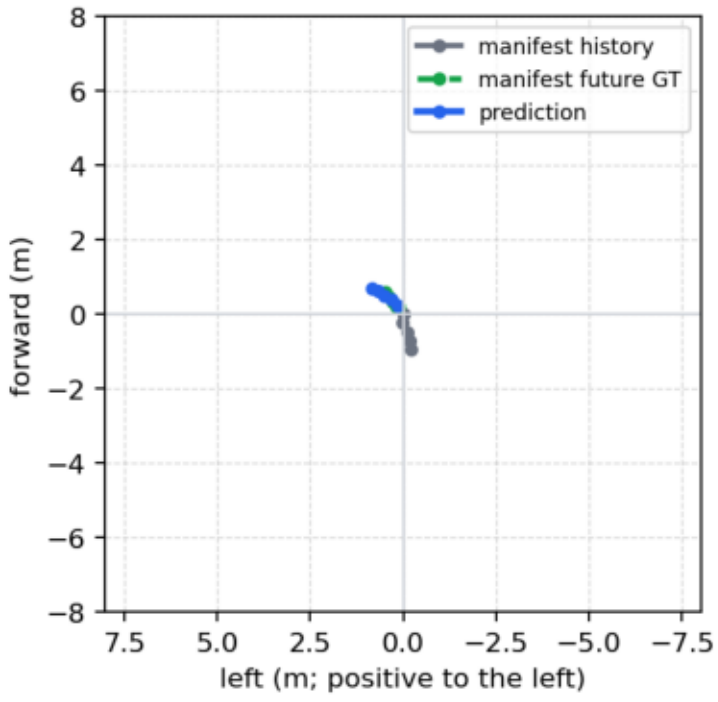
t=-5s | t=-1s | 606 | t=+1s | t=+5s









Student Prediction

ANALYSIS
Prediction: The crowd is dense and moving slowly. The pedestrians directly ahead (center and right) are likely to continue moving forward at a slow pace or stop, maintaining the current congestion. The pedestrian on the left is moving slightly faster, potentially creating a gap.

Navigation Goal: The goal position [0.606, 0.481] is located forward and to the left of the current position. This requires the robot to navigate through the crowd, specifically aiming for the space between the central pedestrian and the left-side pedestrian.

Feasible Area: The feasible space is narrow and constrained by the crowd. There is a potential gap forming on the left side between the pedestrian in the black top and the pedestrian in the white shirt. The center is blocked by the pedestrian in the white shirt.

Rules: No specific traffic signs or signals are visible. Navigation is governed by social norms of crowd movement and avoiding collisions.

Collision Risks: High risk of collision with the pedestrian in the white shirt directly ahead and the pedestrian in the black top to the left. The robot must move slowly to avoid bumping into these individuals.

RATIONALE
The robot should execute a 'stop' or very slow forward movement with a slight leftward adjustment. Given the dense crowd and the goal position being slightly to the left, the robot needs to carefully navigate the gap between the central and left-side pedestrians. The historical trajectory shows a slow approach, and the current scene requires caution due to the proximity of pedestrians. The robot should pause or move very slowly to assess the gap and ensure safe passage towards the goal.

Teacher Reflection

ANALYSIS REFLECTION
Prediction: No clear issue.
Navigation Goal: No clear issue.
Feasible Area: No clear issue.
Rules: No clear issue.
Collision Risks: No clear issue.

PLANNING REFLECTION
Rationale: The rationale correctly identifies the need for caution and a leftward adjustment to reach the goal. However, the predicted meta-action 'stop' contradicts the predicted trajectory, which shows significant forward and leftward movement. The ground-truth trajectory confirms that the robot should continue moving forward and left, rather than stopping.

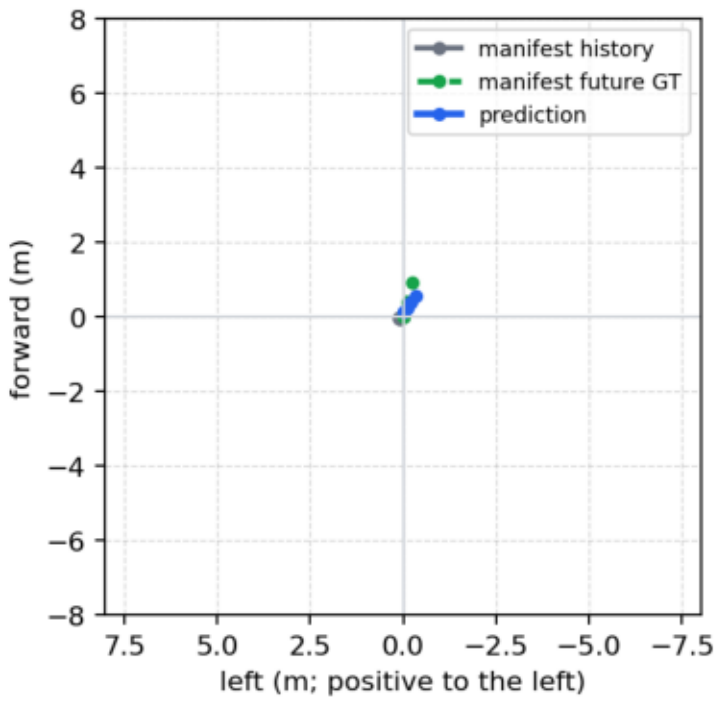
CORRECTION
Analysis: No clear issue.
Planning: The robot should execute a slow forward movement with a leftward adjustment to navigate through the gap between the central and left-side pedestrians. The meta-action should be 'move' rather than 'stop' to align with the trajectory and the goal.
Trajectory: The predicted trajectory is generally correct in direction but slightly overestimates the distance covered. The ground-truth trajectory shows a more gradual progression towards the goal.

t=-5s | t=-1s | 339 | t=+1s | t=+5s









Student Prediction

ANALYSIS
Prediction: The pedestrians in the foreground (red shirt, black shirt, white shirt) are walking towards the robot and will pass by within the next few seconds. The pedestrian in the white shirt on the left is moving away. The crowd density is moderate, requiring careful navigation.

Navigation Goal: The goal position [0.925, -0.254] is slightly forward and to the right. However, the immediate path is blocked by oncoming pedestrians. The robot needs to navigate through the crowd safely.

Feasible Area: The paved plaza area is the feasible space. There is a gap between the oncoming pedestrians that the robot can utilize, but it requires precise timing and lateral adjustment.

Rules: No specific traffic signs or signals are visible. The navigation is governed by social norms of pedestrian right-of-way and collision avoidance.

Collision Risks: High risk of collision with the oncoming pedestrians, particularly the man in the red shirt and the man in the black shirt, who are very close to the robot's path. The robot must yield or navigate around them carefully.

RATIONALE
The robot should execute a 'stop' action. Although the goal is forward, the immediate presence of multiple pedestrians walking towards the robot in close proximity makes forward movement unsafe. Stopping allows the pedestrians to pass safely and provides a clear view of the path ahead before proceeding towards the goal.

Teacher Reflection

ANALYSIS REFLECTION
Prediction: No clear issue.
Navigation Goal: No clear issue.
Feasible Area: No clear issue.
Rules: No clear issue.
Collision Risks: No clear issue.

PLANNING REFLECTION
Rationale: The rationale to 'stop' is incorrect. The ground-truth trajectory shows the robot moving forward and slightly right to navigate through the crowd, rather than stopping. The gap between the oncoming pedestrians allows for safe passage without halting.

CORRECTION
Analysis: No clear issue.
Planning: The robot should proceed forward and slightly right to navigate through the gap between the oncoming pedestrians, rather than stopping.
Trajectory: The trajectory should move forward and slightly right, following the path of the ground-truth trajectory.