

# Meeting

## 05/19/2020

Shuo Zhang

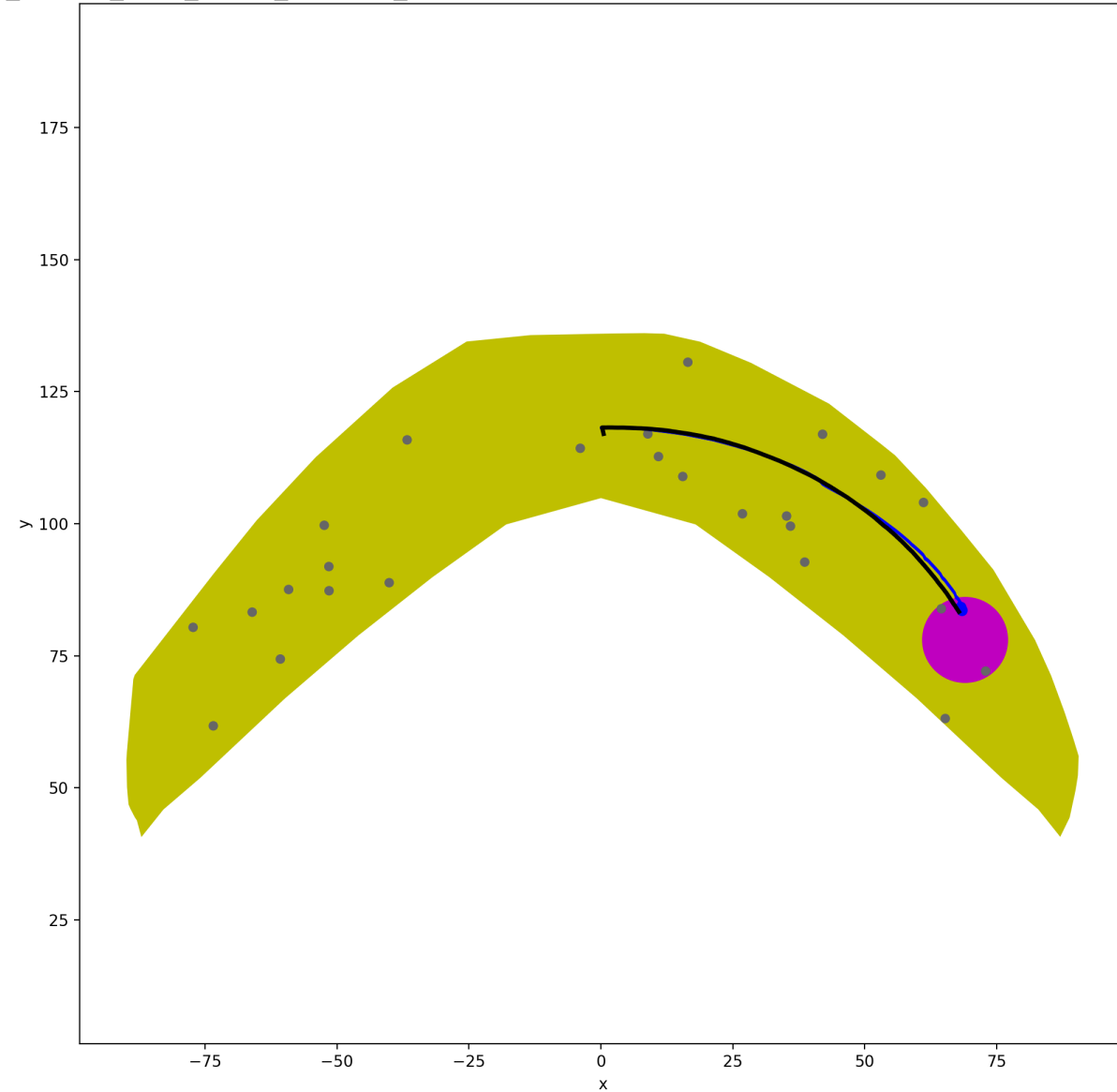
## **Cases in Paper:**

- Simple Cases
- Horsehoe case

# Simple Case 1

**dist\_sofar+dist\_togoal  
+100\*check\_small\_action  
+1000\*check\_opposite\_direction**

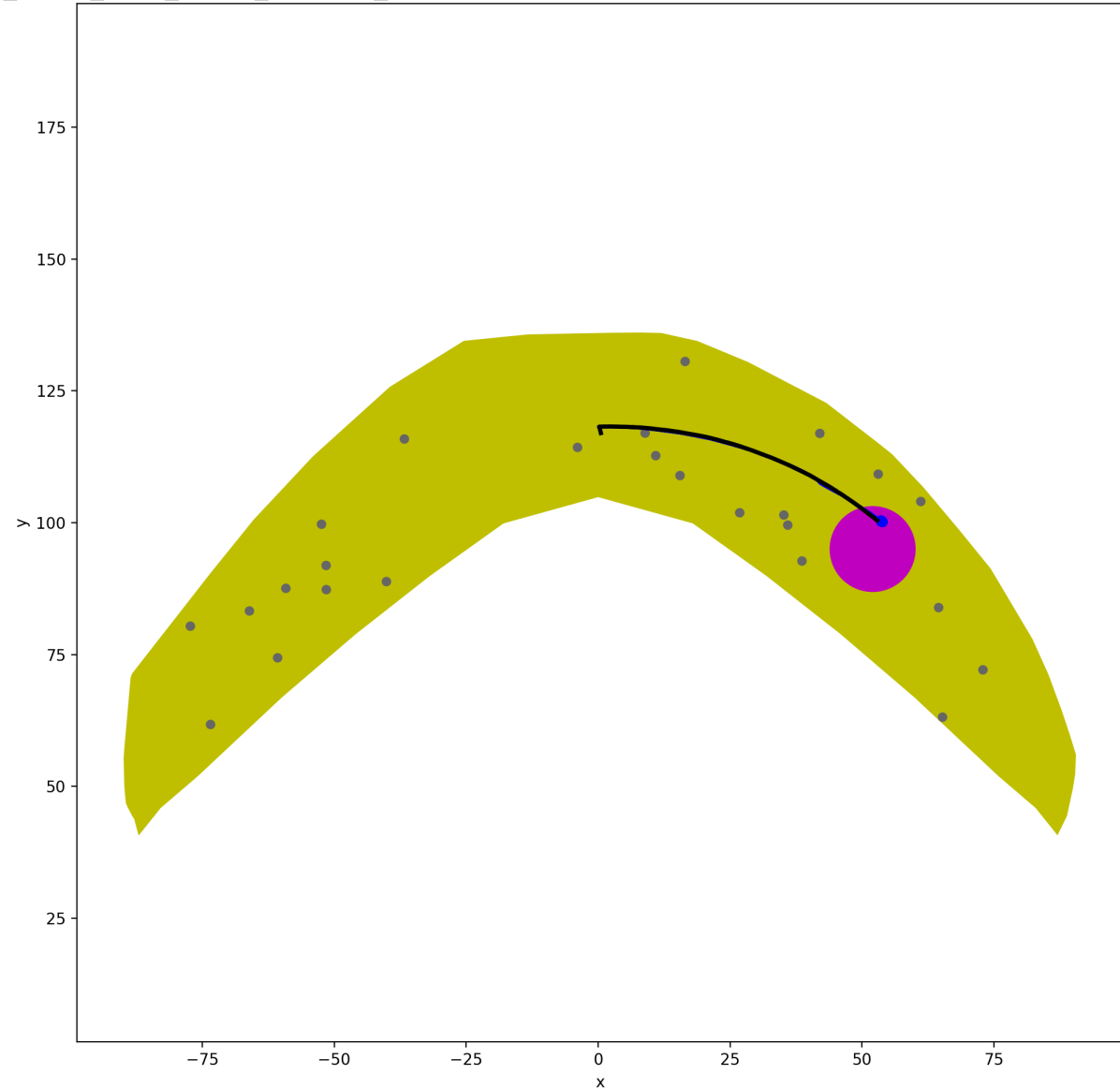
astar\_goal15\_run0\_m100\_obs0.75\_plan, suc. rate: 100.0%, goal reach rate: 100.0%, RMSE: 1.0 mm



# Simple Case 2

**dist\_sofar+dist\_togoal**  
**+100\*check\_small\_action**  
**+1000\*check\_opposite\_direction**

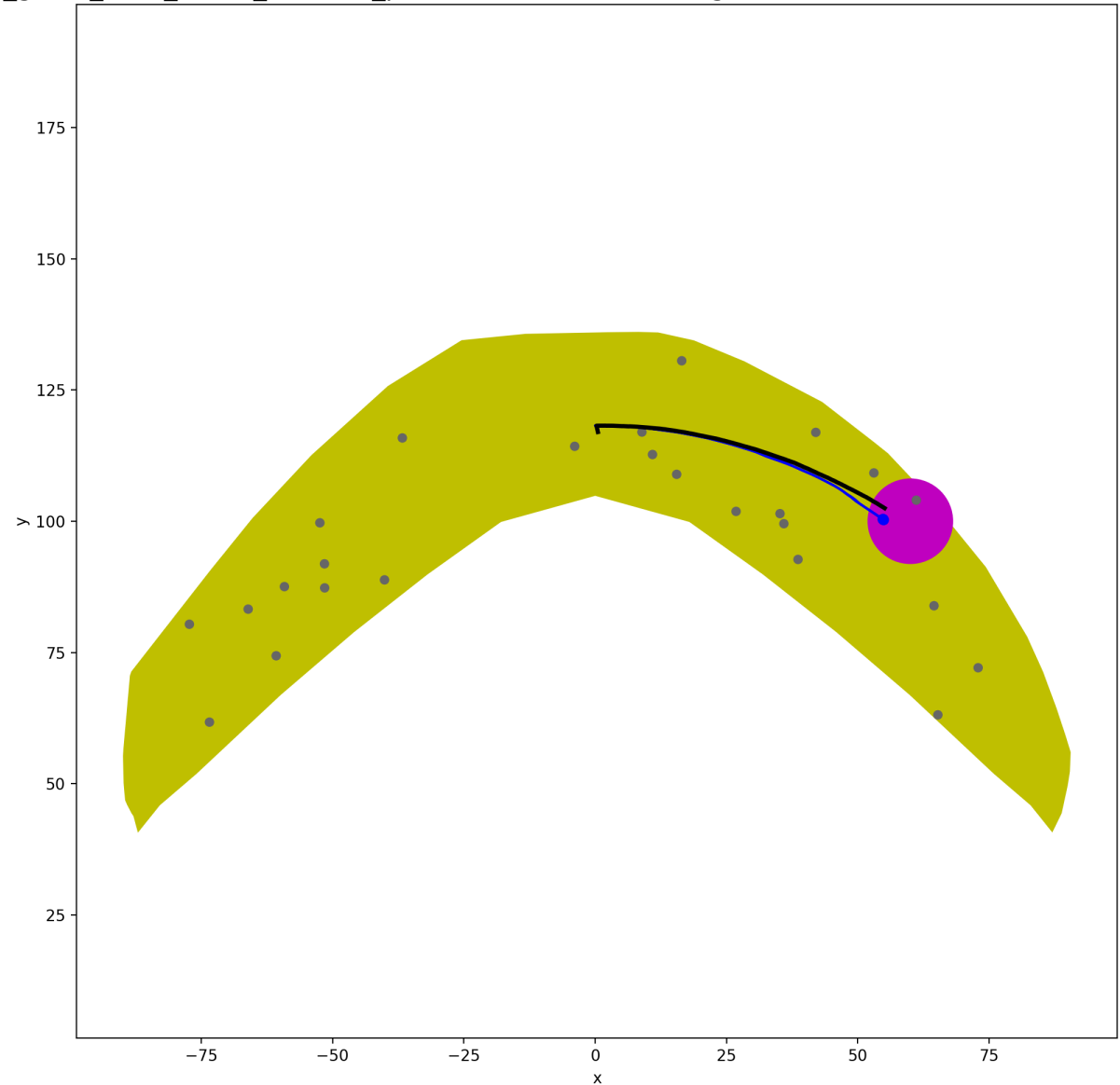
astar\_goal8\_run0\_m100\_obs0.75\_plan, suc. rate: 100.0%, goal reach rate: 100.0%, RMSE: 0.94 mm



# Simple Case 3

**dist\_sofar+dist\_togoal**  
**+100\*check\_small\_action**  
**+1000\*check\_opposite\_direction**

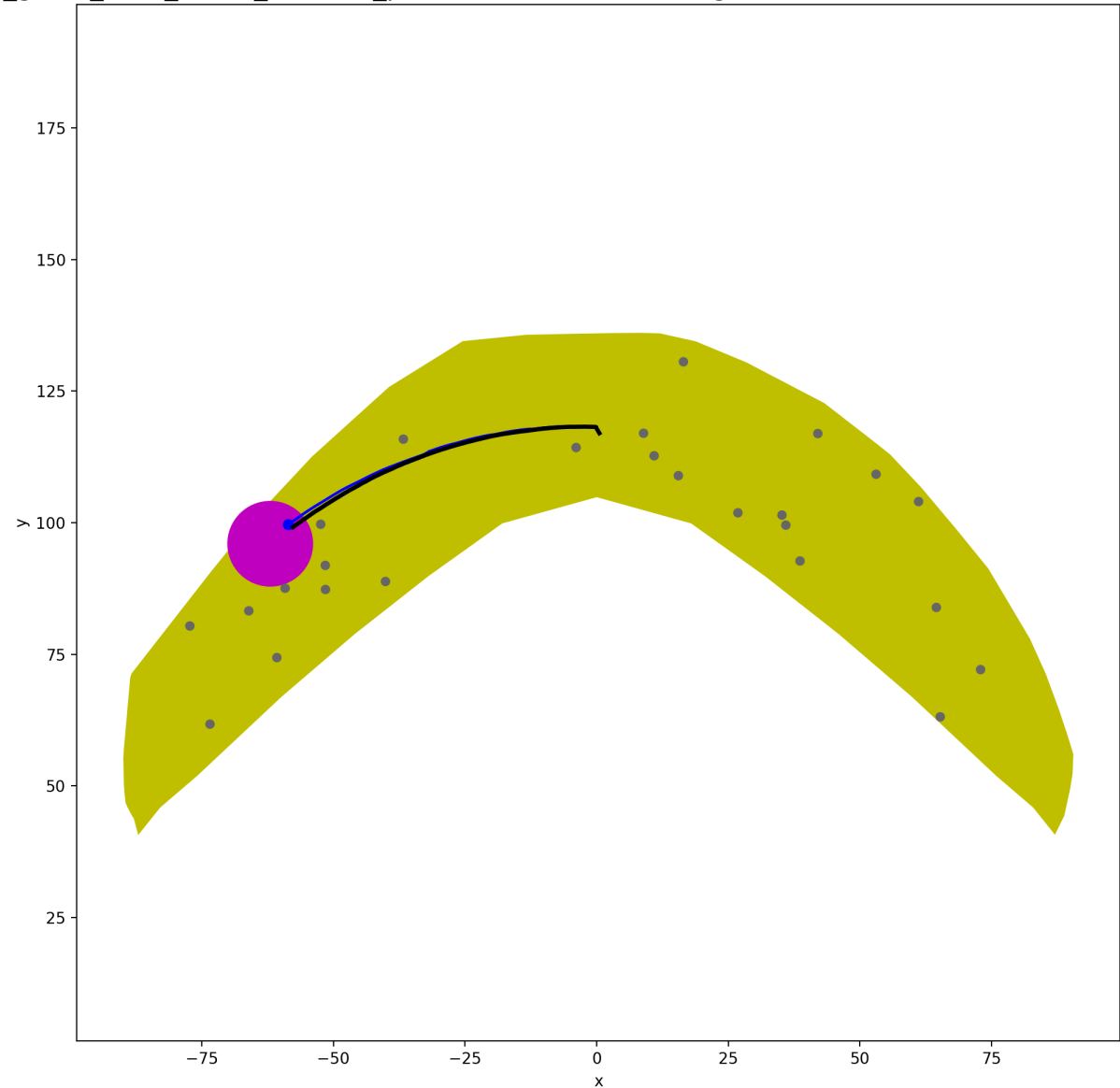
astar\_goal7\_run0\_m100\_obs0.75\_plan, suc. rate: 100.0%, goal reach rate: 100.0%, RMSE: 1.25 mm



# Simple Case 4

**dist\_sofar+dist\_togoal**  
**+100\*check\_small\_action**  
**+1000\*check\_opposite\_direction**

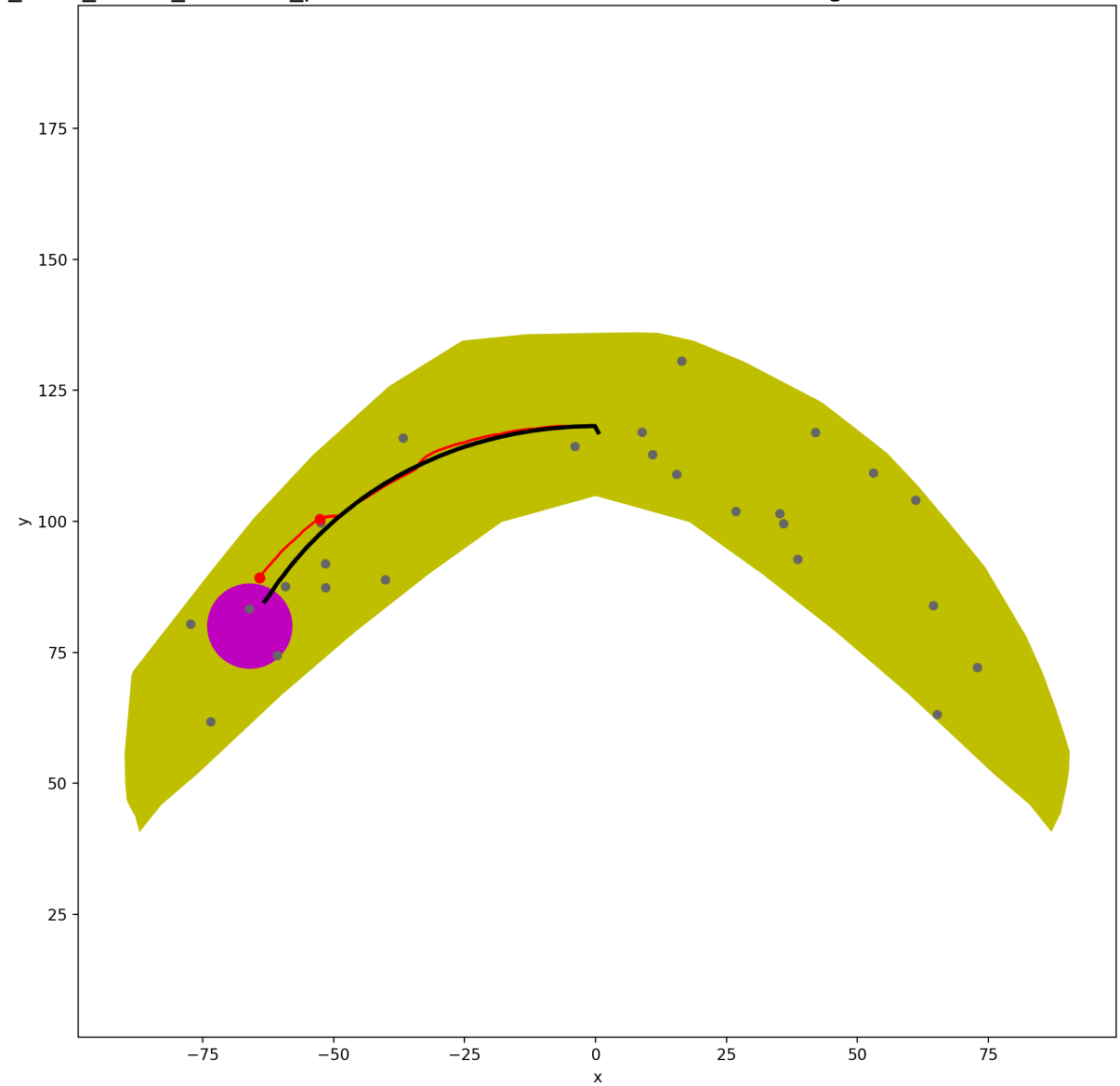
astar\_goal2\_run0\_m100\_obs0.75\_plan, suc. rate: 100.0%, goal reach rate: 100.0%, RMSE: 0.83 mm



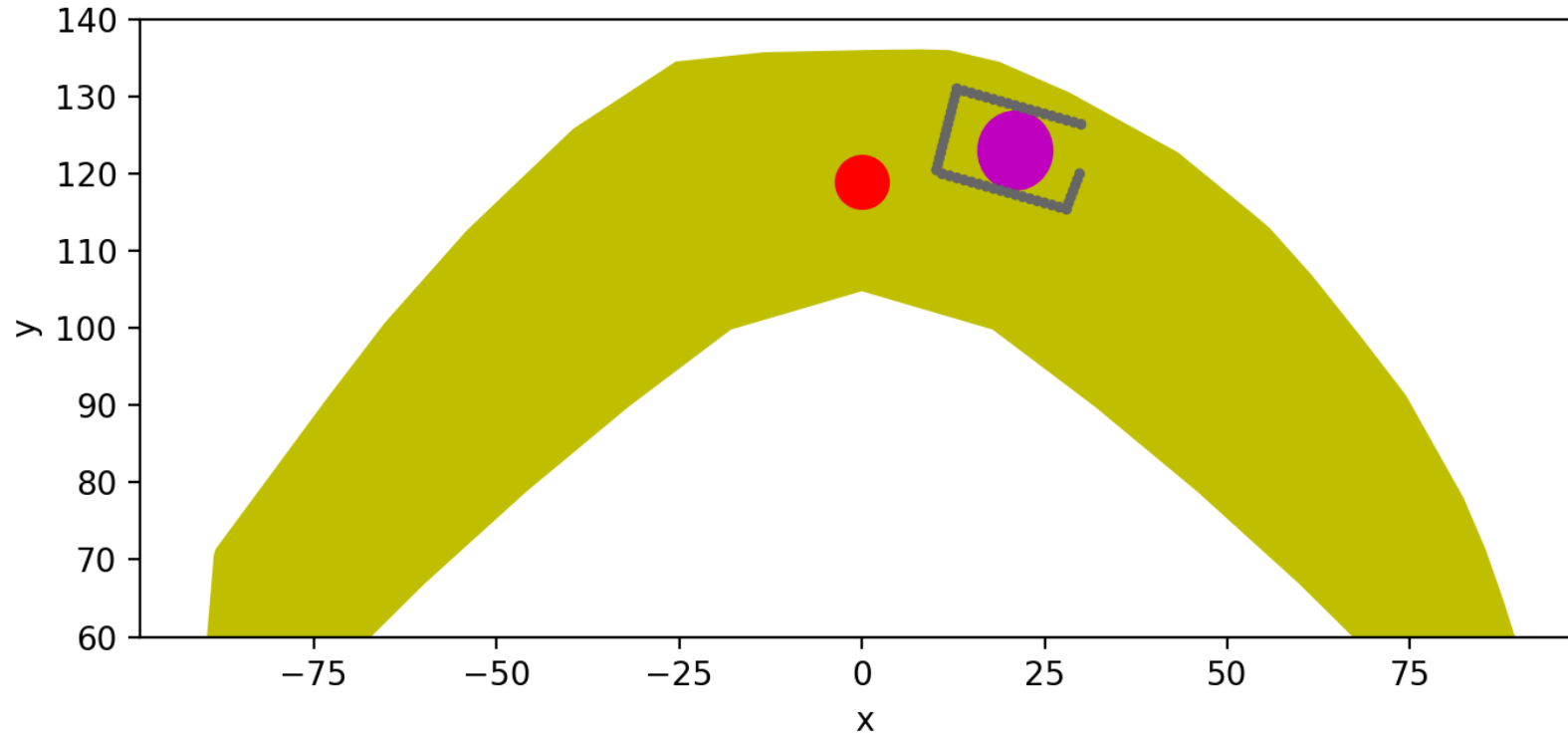
# Simple Case 5

**dist\_sofar+dist\_togoal**  
**+100\*check\_small\_action**  
**+1000\*check\_opposite\_direction**

r\_goal0\_run0\_m100\_obs0.75\_plan, suc. rate: 66.66666666666666%, goal reach rate: 0.0%, RMSE: 2.1



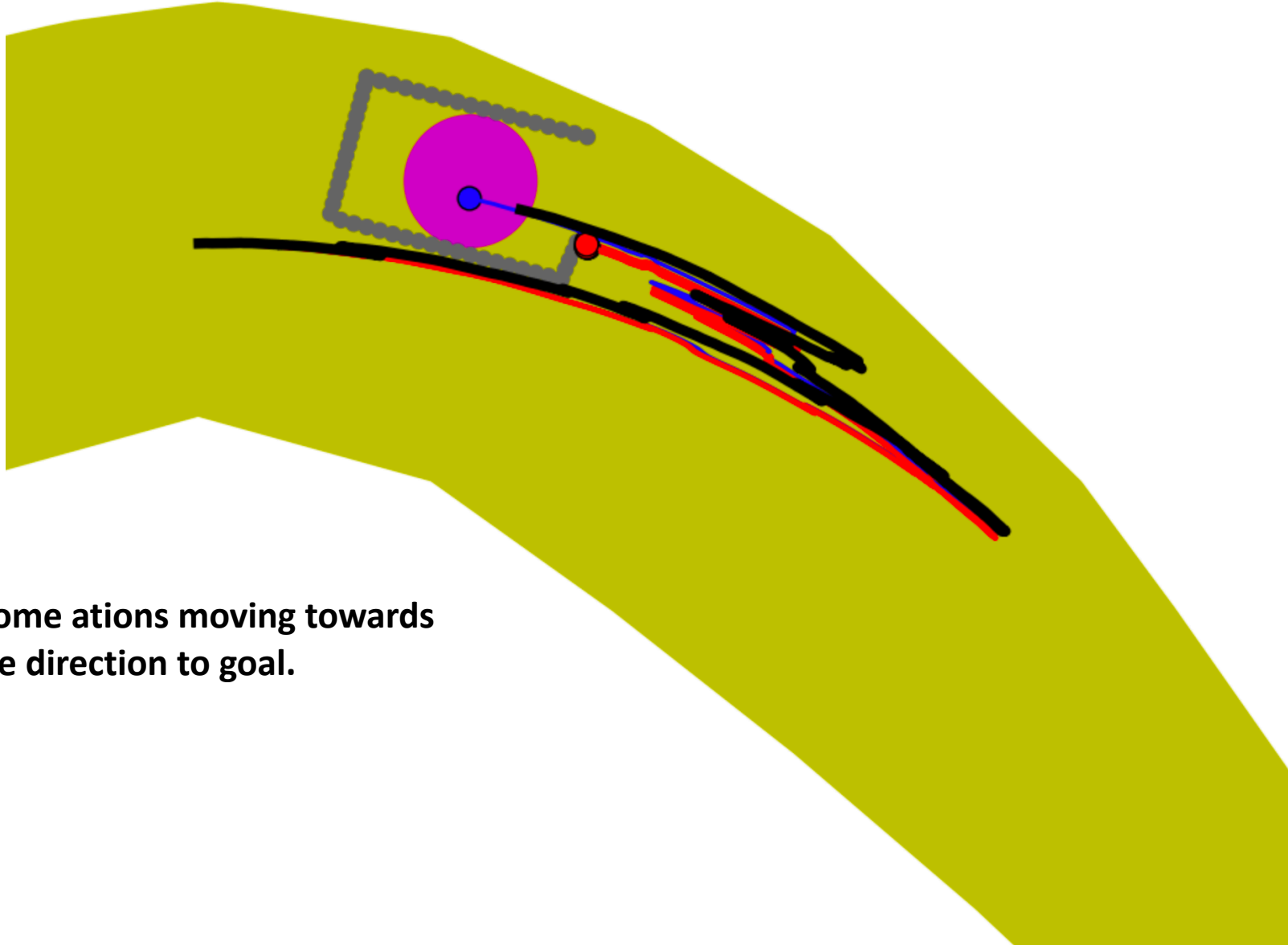
# Horseshoe Case



No results yet, after couple of hours planning!  
Need to adjust planner heuristic/cost function! (In Progress)



# Horsehoe Case: Avishai's Planner



There are some actions moving towards the opposite direction to goal.

# Discussions: To accelerate

- Reduce number of same actions in one big step
  - Delete `dist_sofar`
  - Delete/Adjust weight of “towards opposite direction” penalty
  - Adjust weight of “small action” penalty
- 
- Try Simpler Version First

