

## Weekly report

### 1 **My Objectives this week: Optimal Solution for the algorithm for two robots positioning using friction**

- make sure three move works for all cases
- make the rotations work correctly
- complete the algorithm so that it also considers the not achievable sets.

### 2 **My Accomplishments this week**

- All the rotations and three moves work.
- Not achievable part also works.
- The paper is now drafted and all the covariance stuff is out. (Github is updated)
- I made these two images:

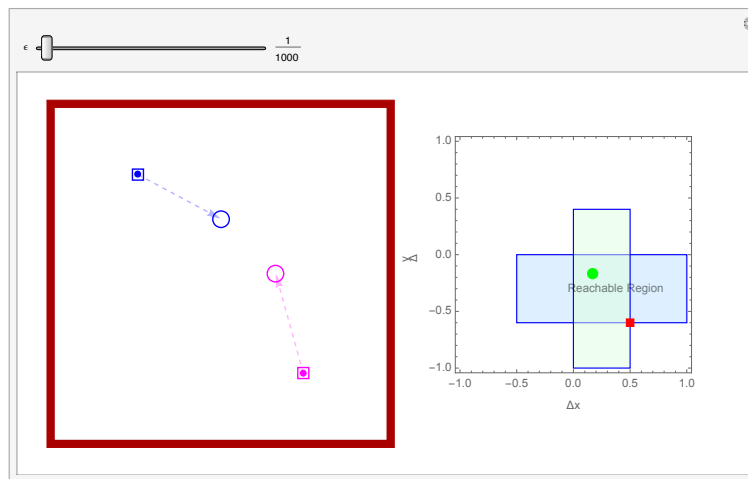


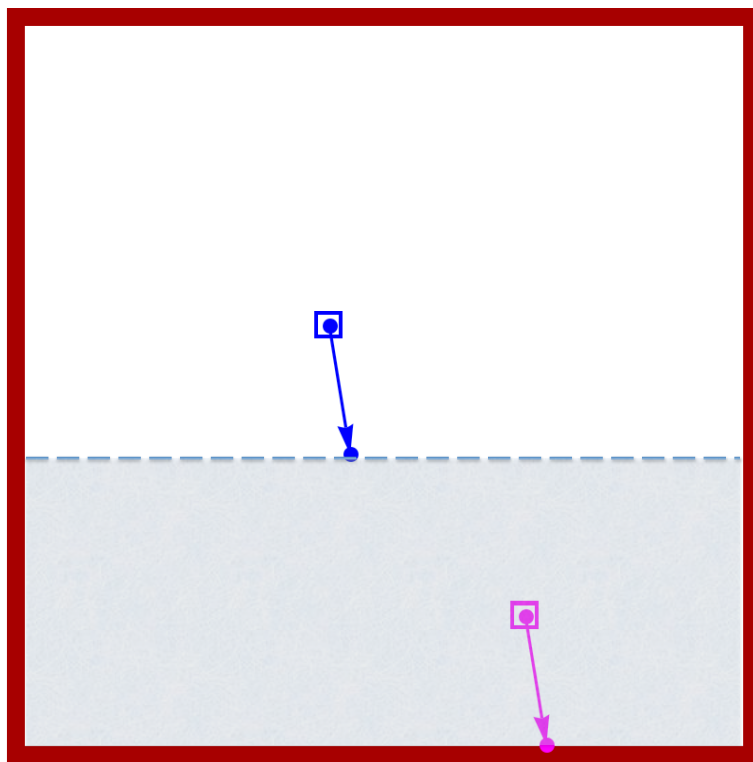
Figure 1: The two rectangles shows the reachable sets of the robots.

### 3 **My Plan for next week**

- Complete debugging the optimal function A star algorithm.
- Rewrite the whole paper with the new algorithm.

#### 3.1 **Meeting with Dr. Becker**

- Nothing to mention. I will give my progress report in my next meeting.



**Figure 2:** The area where the not touching robot can get in one move to adjust  $\Delta gx$  and  $\Delta gy$ .