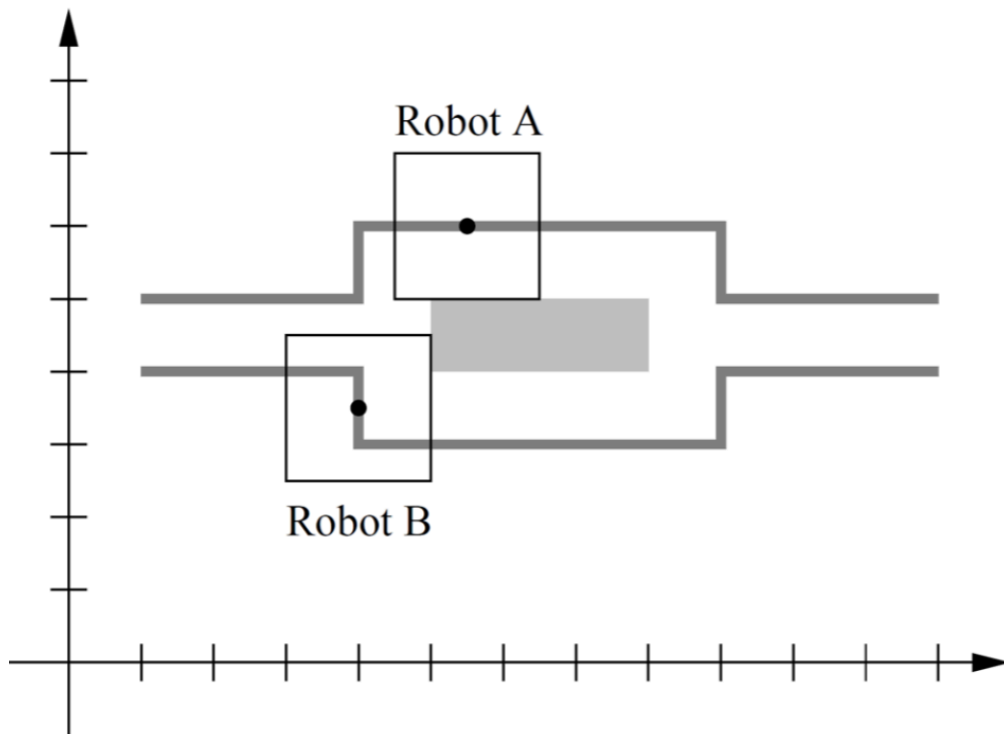# CS 5335 HW2

Yiqiu Huang

C0

(A)

The 2D configuration can be represented with new X-axis and Y-axis with X-axis indicate the distance from origin to robotA and Y-axis indicate the distance from origin to to robot B(both from left to right). The limit of the axis will be the limit for all ticks that each robot can reach. As the above figure shown, the limit will be 1 to 12 for X axis (robot a) and 1 to 12 for Y axis (robot B). The above diagram depicts Cartesian Configuration.

(B)

The Configuration space show the a below picture. The shaded area indicate a collision.
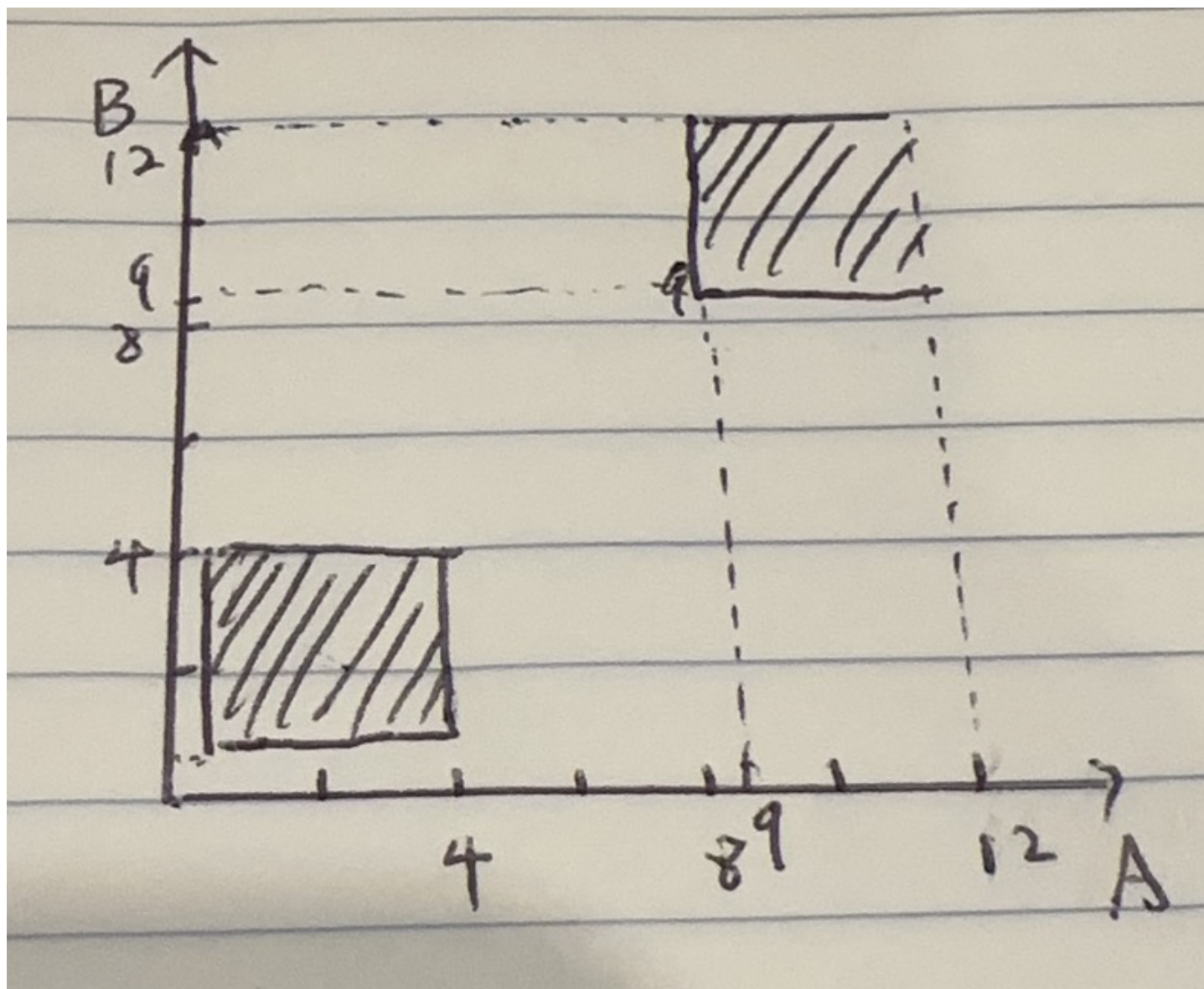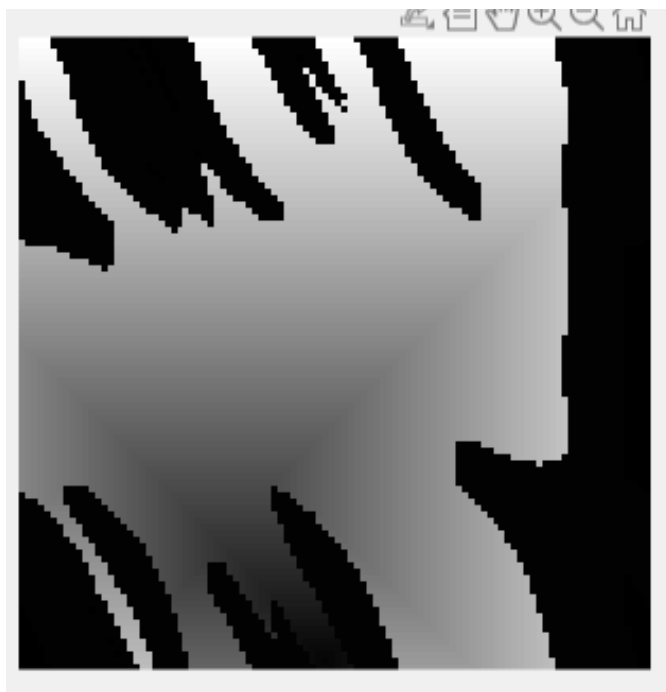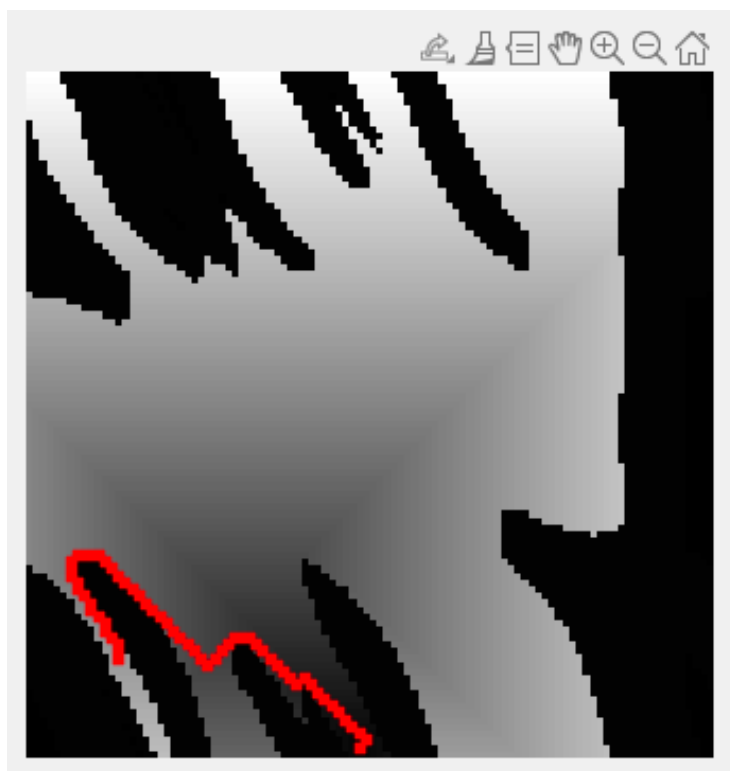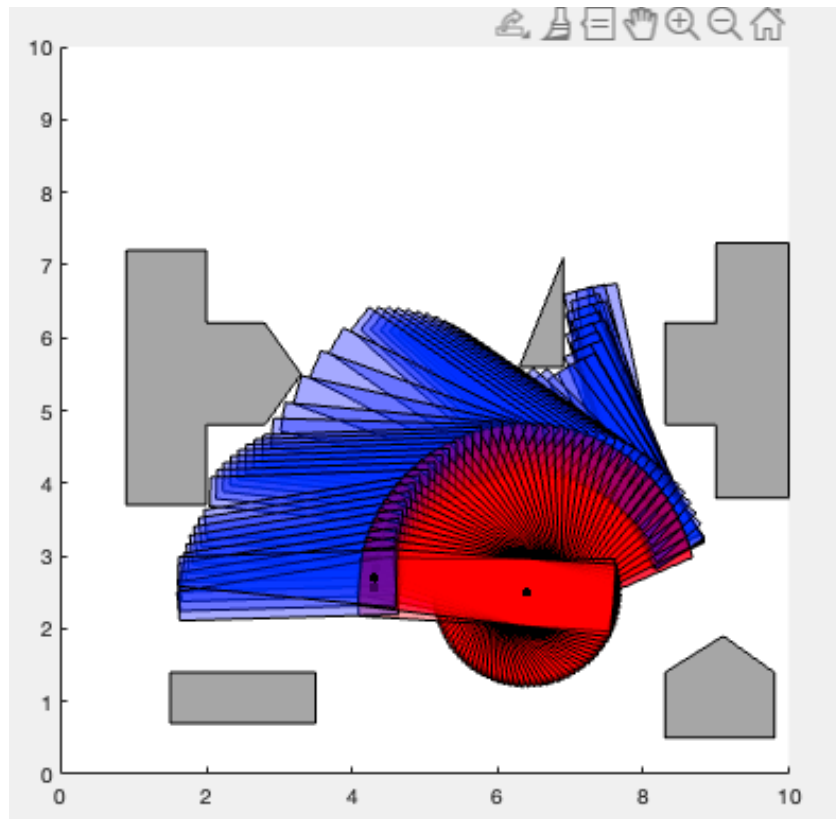
c1
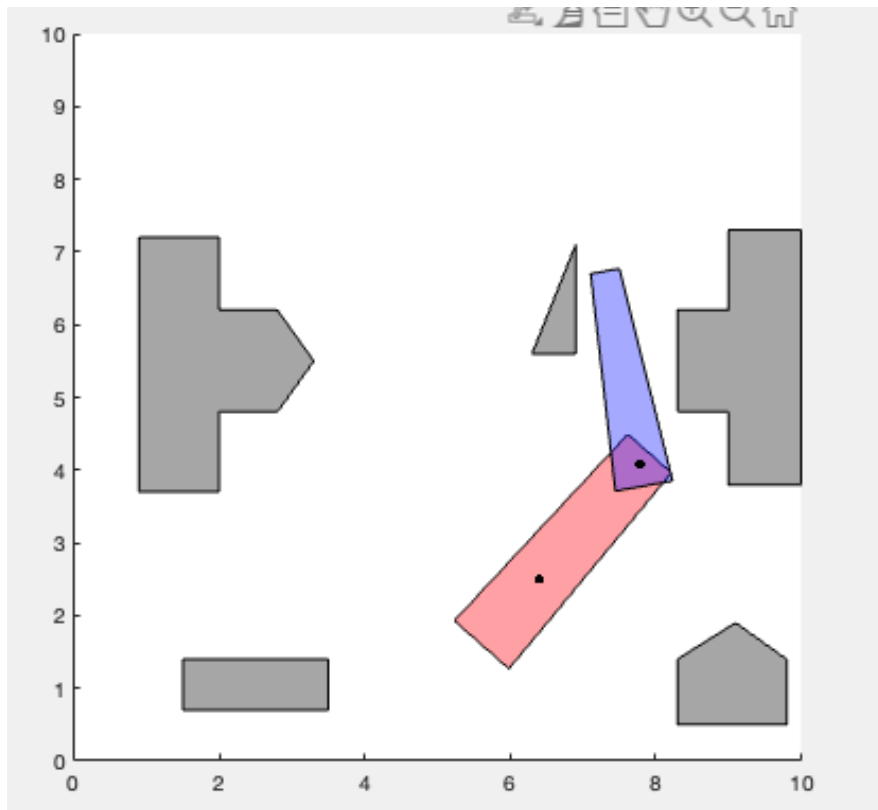
c2

C3

c4

C5

c6

I found 2 collision at the below config:

collision detected! config:
   0.4443   1.8405

collision detected! config:
   2.5387   0.6981

c7

After correctly pad the obstacle, it can not find the path without swept value collision