Introduction to Robotics Homework D

Robot Problem

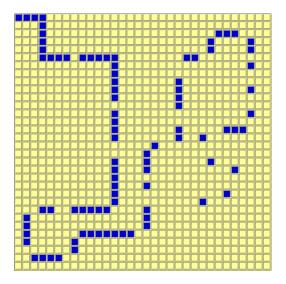


Figure 1: Santa Fe Trail

On your foamcore place (approximately, and not putting the little grid separations) strips of black tape to match the 'trail' in the above image. You don't have to be super exact.

Have you robot follow the trail.

Notice the trail has gaps. There is a rule for negotiating the gaps.

If you are at a position P facing forward then look to your left a little (one metaphorical square). If you see tape there then that's the trail. If you see nothing when 'looking' left, then look to the right a little. If you see tape there then that's the trail. If you 'see' nothing looking to the left and right then just go straight, that's the trail.

Starting position is the upper left square. Note that the trail gets more and more difficult as you progress.

This is a canonical AI problem but I'm not asking you to learn the rules (I just gave them to you), just follow the trail.