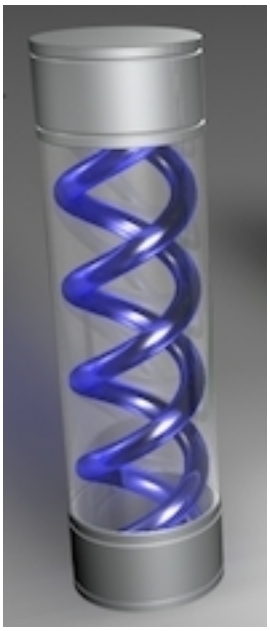
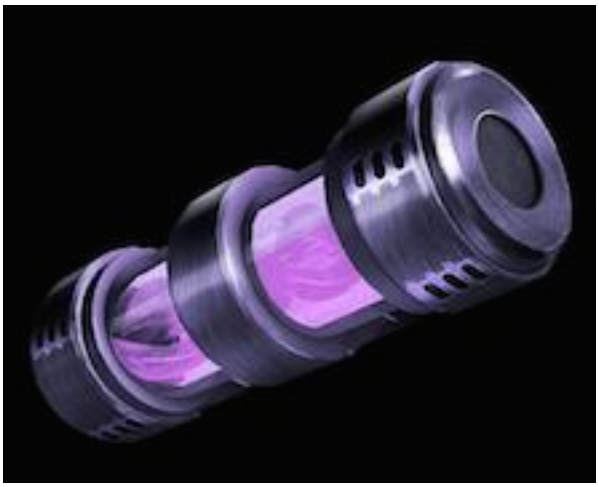
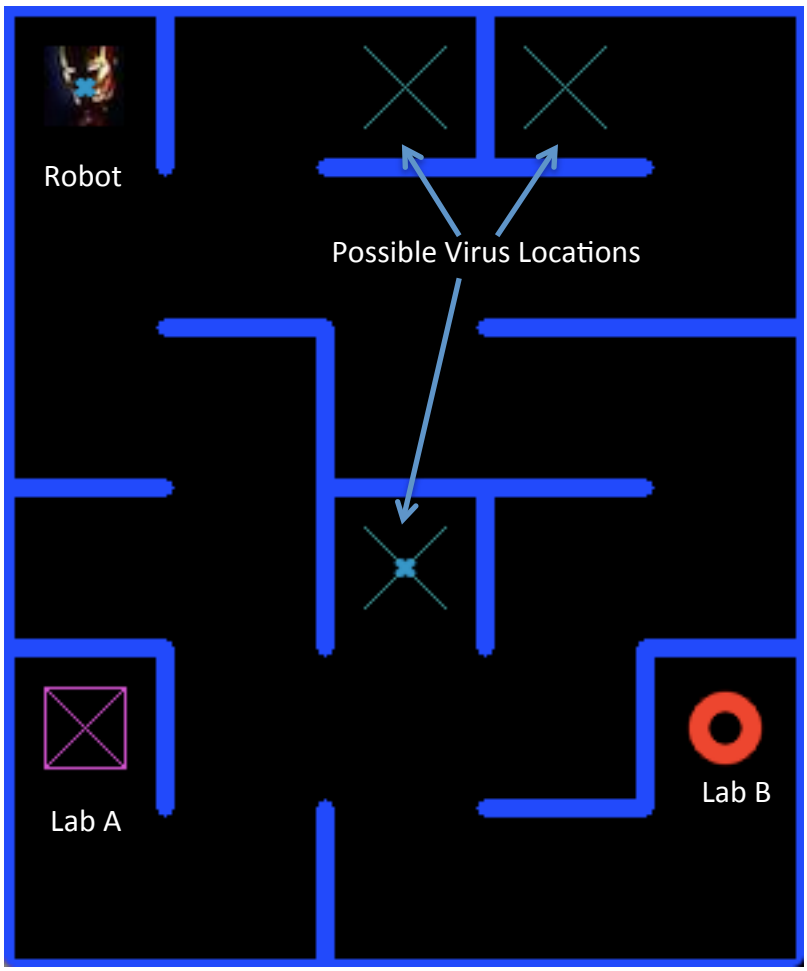
A Mission to the Cure

Your robot is assigned to collect 2 kinds of lethal viruses (A-Virus & B-Virus) for the 2 Labs (Lab A & Lab B).





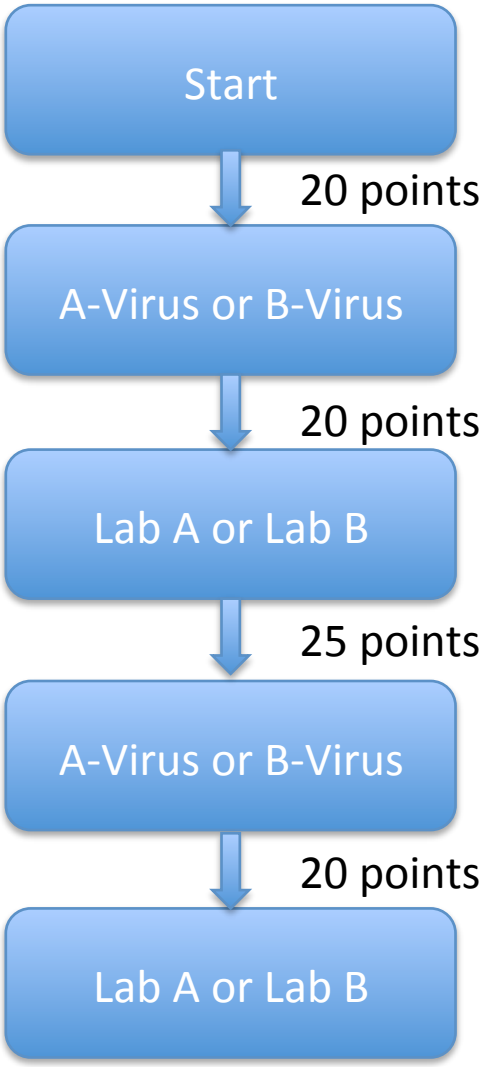
However, based on the given information and the map, your robot only knows the locations of the 2 labs, 3 possible locations of the viruses and the start point of itself as shown below:



Because of the polluted environment, your will need to command your robot to collect A-Virus for Lab A and B-Virus for Lab B so that they can produce a cure for all mankind.
The virus has its own color (Ex: Red = A-Virus; Green = B-Virus). Your robot can use the camera to detect the color of the virus and then decide which lab it should go to.
The general flow is:
start -> A-virus or B-virus -> Lab A or Lab B -> A-virus or B-virus -> Lab A or Lab B
At the end, you also need to create a video to introduce

how your robot accomplished the task.

Credits:



20 + 20 + 25 + 20 + 15 (Video) = 100
Hit the Wall: -5 points
For each discontinuity: -10 points
For not returning the components: -5 points/each component

Video:

In the beginning of your video, you need to show:
Ex:
USC Fall 2015 CSCI 445: Introduction to Robotics
Your Team Number
Team Members' Names
Professor's name
TAs' name

15 Points Video:
https://www.youtube.com/watch?v=-wLIaqWVoGM

5 Points Video:
https://www.youtube.com/watch?v=ZawRqbtVuSc

An Introduction to A* Algorithm:

https://www.youtube.com/watch?v=KNXfSOx4eEE