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Dr. Hayes
Intro to Robotics
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<div align="center">Lab 6 Report</div>

1. State machine

```
start state
        |
        v
state has path
        convert world map to sparki map
        calculate shortest rout to next coordinate
        |
        v
state seeking pose
        move sparki on the map to the calculated
shortest path coordinate
```
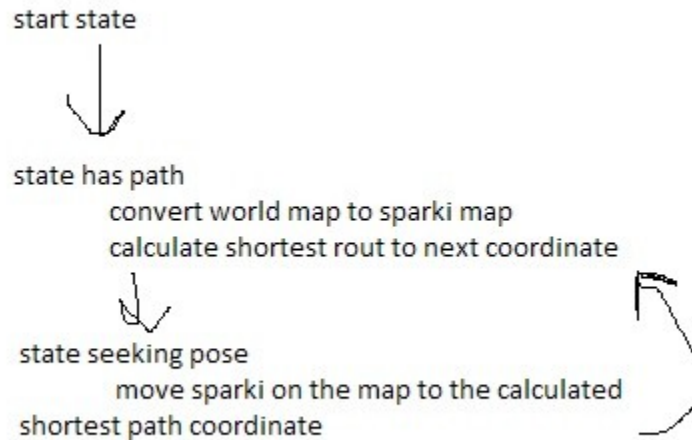
2. I could modify this code to gracefully handle unforeseen objects in Sparki's path by using the ultrasonic sensor to determine where the object is, then have that object placed in the robot's map. With a now known object on the map, and its location, Sparki should update its calculations for the shortest route while avoiding objects.
3. Increasing DISTANCE_MARGIN and HEADING_MARGIN
4. trouble

5. advantageous

6. Names of everyone in the group:
   Madelaine Struwe
   Jason Evarts
   Sherry Nguyen

7. We spend around 4 hours programming this lab.