

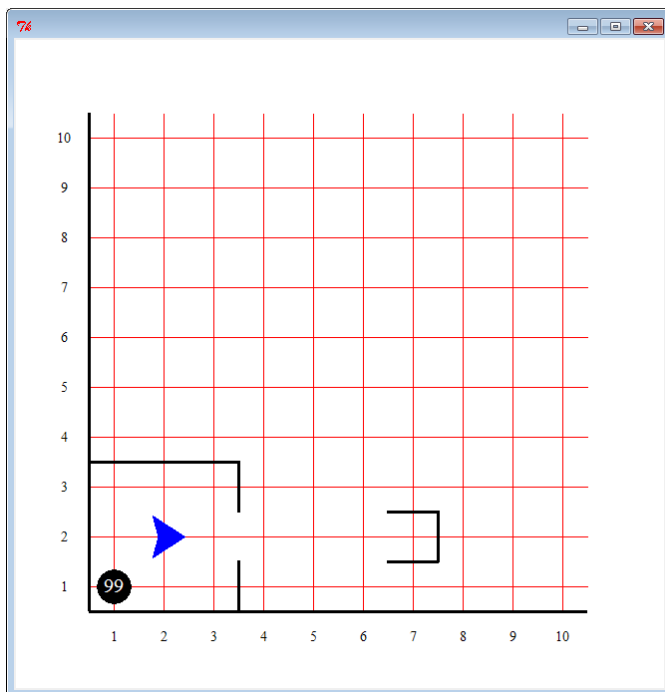
Lab 8: Introducing the While Loop

Objective(s):

- You will be able to repeat statements using the while loop

Directions:

1. Create a new file named **Lab8.py**
2. Download the **trash.wld** file and move it into the **worlds** folder
3. Write a simple pyKarel program so that you can see the world



4. Pickup all the trash (beepers) in the house and drop them it all off in the trash can located at (7, 2). You should use the **while** loop to pick up the beepers all the trash because you do not really know how much trash there is to pick up. You should also use a loop to drop off all the beepers while you have any. Also tell your Robot to turn around and return to the house. **Program using as few commands as possible! Robot conditional functions are listed on next page.**
5. If you need to speed up the Robot, then decrease the world's delay:

```
wld = World("maze1", delay = 0) #you can customize delay
```

6. Demo and submit **Lab8.py**

Robot Condition Functions

`anyBeepersInBeeperBag()` - True when robot has beepers, False otherwise
`frontIsClear()` - True when front of robot is clear, False otherwise
`leftIsClear()` - True when left of robot is clear, False otherwise
`rightIsClear()` - True when right of robot is clear, False otherwise
`backIsClear()` - True when back of robot is clear, False otherwise
`facingNorth()` - True when robot is facing North (up), False otherwise
`facingSouth()` - True when robot is facing South (down), False otherwise
`facingEast()` - True when robot is facing East (right), False otherwise
`facingWest()` - True when robot is facing West (left), False otherwise
`nextToABeeper()` - True when robot is on top of a beeper, False otherwise
`nextToARobot()` - True when robot is on top of another robot, False otherwise