Results from Filtering with num_iter = 4:

```
robot location [2, 0]
sensed color: b
[0.0, 0.0025, 0.055, 0.0025, ]
[0.0025, 0.0025, 0.055, 0.0, ]
[[0.0, 0.0025, 0.055, 0.0025, ]
[0.0, 0.0025, 0.055, 0.0, ]


#.A.
...#
#...
#..#

robot moving south
robot location [2, 1]
sensed color: b
[0.0, 7.5e-05, 0.03685, 0.0006, ]
[7.5e-05, 0.000625, 0.02475, 0.0, ]
[0.0, 0.000625, 0.03685, 2.5e-05, ]
[0.0, 0.000625, 0.0363, 0.0, ]


#...
..A#
#...
#..#

robot moving north
robot location [2, 0]
sensed color: b
[0.0, 7.75e-06, 0.021675500000000004, 0.00038050000000000003, ]
[7.499999999999999e-06, 0.00026075, 0.0136895, 0.0, ]
[0.0, 0.00038725, 0.0215435, 2.5000000000000004e-07, ]
[0.0, 0.00038175000000000004, 0.024079, 0.0, ]


#.A.
...#
#...
#..#

robot moving south
robot location [2, 1]
sensed color: b
[0.0, 2.7625000000000002e-06, 0.012550615000000003, 0.00022436500000000005, ]
[3.955e-06, 0.00014345000000000002, 0.007808625, 0.0, ]
[0.0, 0.0002257325, 0.013048695, 2.5000000000000005e-09, ]
[0.0, 0.00025229749999999997, 0.01533433, 0.0, ]


#...
..A#
#...
#..#

[0.0, 5.5701370485592957e-05, 0.25306297047494675, 0.004523959453031698, ]
[7.974621548254123e-05, 0.0028924385868446373, 0.15744836709794147, 0.0, ]
[0.0, 0.004551532891634067, 0.2631059527777391, 5.04084800774597e-08, ]
[0.0, 0.005087173400937154, 0.309192107322477, 0.0, ]
```