

## **Informatik für Mathematiker und Physiker      Lösung 8      HS 09**

URL: [http://www.ti.inf.ethz.ch/ew/courses/Info1\\_09/](http://www.ti.inf.ethz.ch/ew/courses/Info1_09/)

**Aufgabe 1** Extend the floor by a third dimension (of size 4), representing the current direction of the robot. In growing the frontier of labeled cells, simply take the new neighbors along the third dimension into account (directions differing from the current one by +90 or -90 degrees). The shortest path is the shortest one that reaches the target in any of the four directions.