

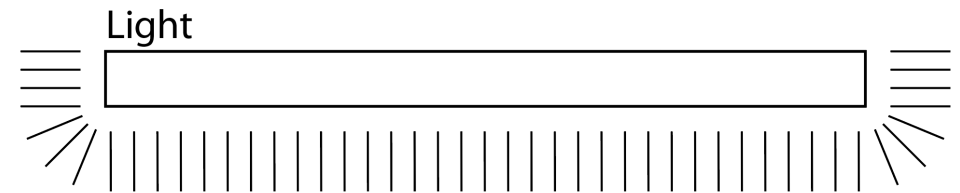
L4-C4 Local navigation and local minima

To test local navigation algorithms, we place the Thymio robot on a paper surface where a local obstacle has been printed (see image on the right). Thymio can detect it with the ground sensors, can drive on its borders to do obstacle following, for instance, but should not pass this obstacle.

A light with a strong IR component is placed as a goal and Thymio has to reach it. Thymio can detect the light with the two ground sensors (the only sensors on Thymio that have an ambient light detector) and can therefore orient toward the light.

Which local avoidance strategy will allow to pass the obstacle?

- A. Potential field
- B. Pledge algorithm
- C. Moving toward the goal when no obstacle, turn left when obstacle



Obstacle printed on ground



Thymio robot