Lab report 1

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The program performs both phototaxis and obstacle avoidance based on the robot's proximity sensor readings and light sensor readings.
In the `step()` function:

1. The step count is incremented.
2. The maximum proximity sensor reading and its corresponding index are searched for.
3. If an obstacle is detected the robot adjusts its velocity to avoid obstacles:
    - When the index corresponding to the maximum proximity value read is between 1 and 12, meaning the obstacle is on its left side, the robot turns right with a random velocity.
    - Otherwise (index between 13 and 24), the robot turns left with a random velocity.
4. If no obstacles are detected the robot light sensors are checked instead to look for the highest sensor reading and its corresponding index
5. Based on the light sensor readings:
    - If a significant light source is detected (maximum reading higher than the threshold `LIGHT_THRESHOLD`), the robot stops as we have reached the light.
    - If a low light source is detected, the robot moves forward at maximum velocity and adjusts its direction towards the light source:
        - If the index corresponding to the higher reading is between 1 and 12, meaning that the light source is on the left side, the robot turns right.
        - Otherwise (index between 13 and 24), the robot turns left.
    - If no light source is detected, the robot towards a random direction with a random velocity.

The implemented behavior was tested with multiple light sources and multiple robots and no deviation to the intended behavior was observed.