

Rubrics for the individual assignment (OLSUE3)

Aspect	Absent Points: 0 Criterion	Insufficient Points: 1 Criterion	Sufficient Points: 2 Criterion	Good Points: 3 Criterion
Performance	The performance of the robot cannot be established (set-up or run-time errors)	The robot never reaches the goal (under standard settings)	The robot reaches the goal some of the time (half of the attempts under standard settings)	The robot reaches the goal most of the time (>half of the attempts under standard settings)
Algorithms	The robot is a pure reflex agent (unstructured list of if-then rules)	The robot has priorities (rules with structure), but considers only single actions (no planning/search)	The robot considers sequences of actions (planning/search) in navigating to the goal and to powerstations	The robot considers sequences of actions in navigating and has a strategy for damage control (avoiding enemies, meeting friends)
Specification	It cannot be established if the program satisfies the specific (set-up doesn't work)	The program interface lacks controls specified in the assignment	The program interface has all controls specified in the assignment but the robot doesn't move (correct set-up, incorrect go)	The interface has all controls, the robot moves, and the user gets a message about its results (correct set-up, correct go)
Documentation	No comments in code or in the info-tab	Comments are mostly unhelpful in understanding the code (irrelevant, incorrect, inconsistent)	Comments are mostly helpful in understanding the code (relevant, consistent, correct)	Comments are mostly helpful in understanding the code as well as design choices, limitations and possible extensions (topics in info tab)

Weights Please note that aspects have different weights: In Canvas this has been implemented by scaling scores to 0-3 points for *Performance* and *Algorithms* and to 0-2 points for *Specification* and *Documentation*

Performance score determines 30% of the grade

Algorithms score determines 30% of the grade

Specification score determines 20% of the grade

Documentation score determines 20% of the grade

Standard settings for performance test

Each robot will be get 10 tries to reach the goal under the following settings:

<u>Coordinates</u>	
start	x-start = 20; y-start=20
goal	x-goal = -20; y-goal= -20
<u>Inventory</u>	
robot size	2
nr. of friends	50
nr. of enemies	50
nr. of obstacles	120
nr. of energy stations	60
<u>Energy</u>	
initial energy	40
walking (per step)	-1
energy recharge (per encounter*)	40
<u>Damage</u>	
initial damage	0
maximal damage	20
meeting an enemy (per encounter)	1
meeting a friend (per encounter)	-1

(the robot cannot go through obstacles, it must move around them)

(costs one unit of energy)

(incurs one unit of damage)

(restores one unit of damage)

*the robot may visit a power station more than once, however there should be a maximum to the energy the robot can store: at most a 100 units at any given time

N.B: If your program requires further settings (for instance thresholds for avoiding enemies and for looking for energy) these should be set by you, either in the code or using a default value for the relevant slider