



AARHUS UNIVERSITET

Department of Electrical and Computer Engineering

Assignment 1

Implementing robot circling with RL
and measuring individual vs. group
performance

Group 4

Alba Arcos I Ribas

Student no. 202503224

Birnir Þór Árnason

Student no. 202503220

Martin Skelde Krøjmand

Student no. 201710685

Wouter Jonathan Oudijk

Student no. 202109059

Zsombor Krisztián Szöke

Student no. 202411164

Teacher: Mirgita Frasheri and Lukas Esterle

Number of characters: xxxxx (xx standard pages)

Aarhus, September 30, 2025

Contents

1	Implementation	2
1.1	Hard-coded solution	2
1.2	RL-learning	2
1.2.1	Alba	2
1.2.2	Krisztián	2
1.2.3	Wouter Jonathan	2
1.3	Subsumption Architecture and Obstacle Avoidance	2
2	Results	3
3	Conclusion	4

List of Figures

List of Tables

1 Implementation

1.1 Hard-coded solution

1.2 RL-learning

1.2.1 Alba

1.2.2 Krisztián

1.2.3 Wouter Jonathan

1.3 Subsumption Architecture and Obstacle Avoidance

2 Results

3 Conclusion