

Designing an Autonomous

Robot-Player for Connect-4

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Boris Ivanov

**Document data:**

Author: Boris Ivanov  
Student number: 2969300  
E-mail: [357544@student.fontys.nl](mailto:357544@student.fontys.nl)   
Date: 15 March 2023  
Place: Eindhoven, the Netherlands

**Company Data:**

Name: ALTEN Nederland  
Address: Hurksestraat 45, 5652 AH Eindhoven  
Company supervisor: Michael van der Velden  
Telephone: 0402563080  
E-mail: [Michael.van.der.velden@alten.nl](mailto:Michael.van.der.velden@alten.nl)

**University Data:**

Name: Fontys University of Applied Science  
Address: Nexus Building (ER, De Rondom 1, 5612 AP Eindhoven)  
School supervisor: Michal Mikołajczyk  
Telephone: 0618592672  
E-mail: [m.mikolajczyk@fontys.nl](mailto:m.mikolajczyk@fontys.nl)

**Approved and signed by the company supervisor**

Date:

Signature:

# Foreword

This is an internship report on ‘Designing an Autonomous Robot-Player for Connect-4’. This project has been realized at ALTEN by Boris Ivanov on behalf of educational program Electrical & Electronic Engineering at Fontys University of Applied Sciences in Eindhoven. The project and this report were realized in the period of February 2023 – June 2023.

I was guided by my mentor Michael van der Velden.

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# Summary

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# List of abbreviations

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|  |  |
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| IT | Information Technology |
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# List of figures & tables

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# Introduction

[written at a later stage]

# About the Company

ALTEN is a global technology consulting and engineering firm. They provide research projects for technical and information systems divisions in the industrial, telecommunications, and service sectors. Their focus being that of the conception and research for the technical divisions. Additionally, ALTEN provides networks and telecoms architectures, as well as development of IT systems for the information departments. As far as industries that rely on ALTEN for their business include, but are not limited to telecommunications, computer systems, networking, multimedia, energy & life sciences, finance, defense, aviation, and information systems. [1]

## Background information

Established in France in 1988, ALTEN is a global engineering and technology consulting firm with locations in 30 nations. ALTEN had 54,100 employees and earned 3.78 billion euros in revenue in 2022. 45% of the group's business is in the French market. [2]

## Company Products

# Project description and assignment

## A picture containing indoor Description automatically generatedProject background

Figure : The Connect-4 Robot

## Problem description

## Assignment

## Project goals

## Project scope

## Boundary condition

## Project approach:

### Development phases

### Verification method (V-model)

# Research

## Research objectives

## Main and sub-questions

## Research approach

## Results

## Conclusions

# Specification

## Functional requirements

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Table : A list of the user requirements

## Non-Functional requirements

# System Design

## Architecture

## Block diagram

## Module description

# Detailed Design/ Module Design

# Realization

# Verification and validation

## Test set-up

## Test results

# Result analysis

# Conclusions

# Recommendations

# Bibliography

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| [1] | "Alten - Services," ALTEN, [Online]. Available: https://www.alten.com/services/. [Accessed 03 2023]. |
| [2] | "ALTEN - 2022 report," 2022-11-02. |

# Attachments

## A. Original assignment

## B. Project plan

## C. Originality Declaration

## D. Confidentiality Declaration (optional)

## E. SRD, System Requirements Document (optional)

## F. SDD, System Design Document (optional)

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