**War of Robotcraft**

**Design Document**

Team: A3

Team Members:

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Document History Log:

# Introduction

# Architecture

# Detailed Design

## 3.1 Packages and Classes

### 3.1.1 Model

### 3DCoordinate

The 3d coordinate class contains three integer values x, y, and z.

### Game

The game class makes the whole game run functionally.

* + setPlayerPosition() : void
    - Summary:
    - Precondition:
    - Postcondition:
  + nextPlayer() : void
    - Summary:
    - Precondition:
    - Postcondition:
  + runPlay() : void
    - Summary:
    - Precondition:
    - Postcondition:

### Map

The map class

* + setMapSize(int mapSize) : void
    - Summary:
    - Precondition:
    - Postcondition:
  + updateMist() : void
    - Summary:
    - Precondition:
    - Postcondition:

### Player

The player class

* + isDead() : bool
  + getCurrentRobot() : Robot
  + nextRobot() : void
* HumanPlayer extends Player
  + move() : void
  + turn() : void
  + shoot() : 3DCoordinate

### AIPlayer extends Player

### Robot

* + turn(int direction) : void
  + move() : void
  + shoot(int distance) : 3DCoordinate
  + damaged(int attackPoint) : void
  + isDestroyed() : bool

### 3.1.2 View package

### GameStartView Class

The game start view

### SetGameModeView

### GameBoardView

### PlayerStatusView

### GarageView

### 3.1.3 Controller

### WarOfRobotcraft

* + game : Game
  + ActionPerformed(ActionEvent e) : void
    - Summary: handle all the button clicked event
    - Precondition: button is clicked in views
    - Input: e is an ActionEvent from clicked button
    - Output: none
    - Postcondition:
  + keyTyped(KeyEvent e) : void
    - Summary: handle all the key typed event
    - Precondition: key is pressed in views
    - Input: e is a KeyEvent
    - Output: none
    - Postcondition:
  + startTimer() : void
    - Summary: start a new timer to be displayed in GameBoardView
    - Precondition: none
    - Input: none
    - Output: none
    - Postcondition: a new timer is started and is showed in GameBoardView
  + GameStartView\_ButtonClicked(JButton clickedButton)
    - Summary: handle the button event of buttons in GameStartView
    - Precondition:
    - Input:
    - Output: none
    - Postcondition: a new SetGameModeView instance created if pressed new game button; a new GarageView instance created if pressed garage button; game quit if pressed quit button
  + SetGameModeView\_ButtonClicked()
    - Summary: handle the button event of buttons in SetGameModeView
    - Precondition:
    - Input:
    - Output:
    - Postcondition:

### 3.1.4 WarOfRobotcraft

### Entry

## 3.2 UML

# Different