

# Assignment 3

## System Requirement Specification

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## 1 Introduction:-

This Software Requirements Specification provides a complete description of all the functions and specifications of the RoboWarZ game. The name of the game developed is an interactive computer game RoboWarZ, a game similar to the well known game pocket tanks, but with some minor changes. In the game, first of all player has to login with his/her id or have to make a new id. players have to fire weapons at each other robots in the games GUI till the health of one of the players is reduced to zero or at the end of game i.e after 8 rounds the player with more health will win. The game is available in both single player (opponent will be A.I) and multi player over a server. The players over a network can chat with each other using text or can do voice chat. The game is made using various tools like javascript, AngularJs, CreateJs(EaselJs), HTML5, CSS3 for client side and for server side we used firebase, NodeJs, Socket.io.

## 2 Functional Specification

### 2.1 Functions of AI

1. The task is that when single player is playing then it has to play with him using AI according to the difficulty level set by the player. The harder the difficulty the more accurate will be the shot of AI.

### 2.2 Functions to be used:-

1. *ClearScreen()*;
2. *Movement()*;
3. *RoboLoad()*;

4. *Status()*;
5. *MenuScreen()*;
6. *DoublePlayer()*;
7. *SinglePlayer()*;
8. *MouseClick()*;
9. *TerrLoad()*;
10. *WeaponShop()*;
11. *WeaponSelector()*;
12. *PlayScreen()*;
13. *Inventory()*;
14. *AIWeaponDecider()*;
15. *Fire Weapon()*;
16. *GameOver()*;

Following are the weapon functions which will be call when any of these weapon will be fired.

1. *AgniVI()*;
2. *AcidRain()*;
3. *DefensiveShield()*;
4. *Electric Wall()*;
5. *ShockBomb()*;
6. *StealthMine()*;
7. *Discharge Trap()*;
8. *CPUWeaponDecider()*;
9. *TacticalNuke()*;
10. *RemoteScout()*;
11. *ReapirBot()*;

### **3 GUI:-**

#### **3.1 Login Screen**

The game will start with this screen and user have to either sign in or sign up to play the game. Both Sign in and Sign up options will be there.

#### **3.2 Game Menu Screen**

The GUI have the following components:-

1. Create Game
2. Find Game
3. Offline with A.I
4. Options
5. Exit

### **3.3 Single Player Screen**

Contains options for selecting difficulty level:-

- 1.Easy
- 2.Medium
- 3.Hard
- 4.Back and Continue

### **3.4 Weapon Shop**

- 1.Contains 10 weapons user can select max 8 weapons.
- 2.Shows selected weapons.

### **3.5 Game Play Screen**

- 1.Night sky background
2. Randomly generated terrain
- 3.Input Box
- 3.1 Angle Bar
- 3.2 Power Bar
- 3.3 Weapon selector
- 3.4 Fire Button
4. Health of both players.

## **4 Tools:-**

- 1.AgniVI.
- 2.AcidRain.
- 3.DefensiveShield.
- 4.ElectricWall.
- 5.ShockBomb.
- 6.StealthMine.
- 7.DischargeTrap.
- 8.TacticalNuke.
- 9.RemoteScout.
- 10.ReapirBot.