



University  
of Windsor

Project Team – 03

# ShootAR Game

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**Quality Assurance Plan**  
(Milestone-1)





Object:

Document Title
Quality Assurance Plan

Submitted To:

Project Director
Ms. Simranpreet Kaur

Project Customer
Ms. Shivani Kapadia

Submitted By:

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# **1. Introduction**

## **1.1 Document Overview**

This QAP (Quality Assurance Plan) outlines the fundamental quality attributes in detail.

## **1.2 Product Scope**

Although AR provides a futuristic vision or may sound like a revolutionary technology, the facts say that it has been around for more than five decades now. As an AR game, ShootAR brings your digital environment to reality by identifying virtual objects in the real world. Our game recreates the movements of a human hand in remarkable detail, giving it an entertainment angle, too.

Our project seeks to determine the influence of AR mobile games on fine motor skills in young adults, an area of incomplete result and verification. With ShootAR, we aim to positively influence the basic motor skills of individuals, such as precision, aiming, speed, agility, or tremor. Our game players will perform significantly better in the accuracy of arm-hand movements with lower time and error rates.

## **1.3 Intended Purpose**

This document aims to collect, analyze, and produce an in-depth understanding of the features we have implemented until milestone 1 to our professor, project manager and customer. We will describe the game features, characteristics, and design implementations. The detailed requirements of the ShootAR system are provided in this document.

# **2. Quality Assurance Plan**

This section will discuss how our finished product will meet all the criteria to deliver the best possible quality product.

## **2.1 Procedure**

Scrum methodology will be used throughout game development. We are going to use an iterative model. In this model, different teams coordinate to discuss the requirements and develop the solutions.

In one iteration, tasks will be assigned to the respective team members. Jobs will be accomplished according to the expected completion date, along with unit testing.

The accomplished functions will be subject to Quality Assurance Testing (QAT). Finally, the completed items will be sent for User Acceptance Testing. Once the user accepts the product, it will be deployed to production.



### 2.1.1 Scrum

Till milestone 1, we have organized Scrum meetings every day at 11:30 AM for 35 minutes. Every team member updates their status about:

- Update about yesterday's task.
- Tasks that are to be completed today and any challenges faced by them.

## 2.2 Testing

Testing is a crucial part of the software development ecosystem. This is because bugs in the software may sometimes cause fatal errors that can be expensive and sometimes deadly.

We follow the following testing procedures throughout our development process to eliminate bugs before deploying to the production environment.

- Unit testing
- Integration testing
- User acceptance testing

## 2.3 Roles & Responsibilities

Name	Responsibility
Kameswara Sai Datta Srinivas Peddada	Game Development
Kartik Peddinti	Quality Assurance
Keneel Chirag Shah	Game Development
Krishna Sravanthi Telapudi	Quality Assurance, Game Development
Mrinal Walia	Game Development, Technical Writing
Varnita Sharma	Scrum Master
Venkata Varaha Rama Sricharan Apparayacheruvu	Game Development
Venkata Sai Vardhan Seepala	Game Development

\*These are generic roles; they may change tailored to the needs.



## 2.4 Future Action Plan

Action	Assigned To	End Date
<b>Implementing different levels in the game.</b>	<b>Kameswara Sai Datta Srinivas Peddada</b>	<b>19<sup>th</sup> March 2022</b>
<b>With each level the challenges will increase.</b>	<b>Kameswara Sai Datta Srinivas Peddada</b>	<b>2<sup>nd</sup> April 2022</b>
<b>Background music adds intrigue and immersion to the user's experience.</b>	<b>Venkata Varaha Rama Sricharan Apparayacheruvu</b>	<b>19<sup>th</sup> March 2022</b>
<b>Timer implementation for level changing trigger.</b>	<b>Krishna Sravanthi Telapudi</b>	<b>19<sup>th</sup> March 2022</b>
<b>Game over/game won/game introduction pop ups.</b>	<b>Venkata Sai Vardhan Seepala</b>	<b>2<sup>nd</sup> April 2022</b>
<b>Creating new 3D Character models.</b>	<b>Keneel Chirag Shah</b>	<b>19<sup>th</sup> March 2022</b>
<b>Sound effects on interacting with objects and the game world.</b>	<b>Varnita Sharma</b>	<b>2<sup>nd</sup> April 2022</b>
<b>Testing the features implemented.</b>	<b>Kartik Peddinti</b>	<b>19<sup>th</sup> March 2022/ 2<sup>nd</sup> April 2022</b>

\*All these assignees are temporary and may change as per the requirements.

## 2.5 Standards

We will review every submission to JIRA and GitHub before adding it to the project. After that, we will successfully test that code block, and then it will be merged into the project code.



Every code block will follow the defined rules and coding standards (below).

With all the updates and modifications to the coding scripts, comments will be added. The software methodology will increase engagement, enthusiasm, and transparency from our daily scrum meetings and team interactions.

Below are the set of standards used for this QAP:

1. [2]IEEE Std 830 IEEE Recommended Practice for Software Requirements Specifications
2. C# <https://docs.microsoft.com/en-us/dotnet/csharp/fundamentals/codingstyle/coding-conventions>
3. Unity <https://docs.unity3d.com/Manual/UnityManual.html>