Sprint 0

In the first sprint, we will focus on analysing the system and researching on interaction.

At sprint 0 we will analyse the system code to find out how it integrates and creates the software. This will involve testing user interactions and research on how these interactions come about.

This will involve testing user interactions and research on how these interactions come about. As a result, we will be able to produce a log of the bugs in the current code, design new software architecture prior to devising a plan (UML) and carry out appropriate acceptance tests. In order to monitor our progress and assess it, we will maintain a project backlog which can be easily accessed at any point in time.

User stories and Acceptance tests

**US5**

As a user, I am able to hear a sound play when my hands are focused with the Kinect so I can confirm when my hands are being used as the controls for the Digital Canvas interface.

* AT5.1

Initial state: The software and Kinect are operating

Test data: None

Instruction: Put user’s hands in front of the Kinect within certain distance.

Result: A sound plays when user’s hands have been detected.

**Story Points: 2**

**US6**

As a user, My interactions will only be played back on the Digital Canvas if they are longer than 3 seconds so that only valuable interactions are displayed on the canvas.

* AT6.1

Initial state: The Kinect installed

Test data:  Kinetic camera, Interaction

Instruction: Interact with the Digital Canvas for 2 seconds.

Result: The interaction will not be played back on the canvas.

* AT6.2

Initial state: The Kinect installed

Test data: Interaction of 3s

Instruction: none

Result: The interaction will be played back on canvas.

**Story Points: 3**

**US2**

As a user, I want to see an example interaction playing when the digital canvas is first started, so that its easy to learn how to interact with the digital canvas.

* AT2.1

Initial state: The Kinect installed

Test data: None

Instruction: Start the digital canvas software  
Result: An example mask & movement interaction is played on screen.

**Story Points: 5**

**US4**

As a user, I am able to see the silhouette of my hands start to glow when I become the main focus of the Kinect camera, so I know i’m interacting with the digital canvas.

* AT4.1

Initial state: The software and Kinect are operation

Test data: None

Instruction: Put user’s hand close enough to Kinect camera and check the silhouette of hands

Result: The silhouette of hands is displayed on screen with glow.

**Story Points:  8**

**US17**

As the curator of Auckland Live, I need the Digital Canvas software to startup automatically without any configuration so that if there’s any issue it can be quickly resolved with a simple restart without any onsite technical support.

* AT17.1

Initial state: Software set up and running

Test data: none

Instruction:  none

Result:  The software will start automatically if the computer restart.

**Story Points: 8**

**US9**

As a user, I am able to use two hands to change the size of the cameras mask so that I can record a larger or smaller interaction.

* AT9.1

Initial state: The Kinect installed, wait user to put two hand close to the Kinect

Test data: Kinetic camera, Interactions

Instruction: Move each hands to diagonal way

Result: The size of mask changes small to large or the other way around.

**Story Points: 10**

**US16**

When a limit of x interactions is reached the oldest interaction videos will fade out completely to avoid video compression artefacts.

* AT16.1

Initial state: Software running and user has interacted greater than x times.

Test data: none

Instruction:  none

Result: The earliest interaction will disappear slowly.

**Story Points: 10**

**US15**

As a user, when interactions are played back on the canvas, any overlapping interactions should blend together so that a visual aesthetic is achieved.

* AT15.1

Initial state: Software running and user has already interacted

Test data: none

Instruction:  none

Result: In screen, all interactions overlapped at the same time.

**Story Points: 10**

**US13**

As a user, I must be able to see the video feed from the live camera using the mask created with the two hand gesture so that the interaction can be recorded.

* AT13.1

Initial state: Software running and kinetic camera ready

Test data: none

Instruction:  Use two hand gesture to create mask , the interaction will be recorded.

Result: The user’s gesture will be recorded.

**Story Points: 13**

**US7**

As a user, my interactions will be cut short if they exceed n X seconds; so that long interactions don’t stretch the interaction video meaning that shorter interactions aren’t played back as often.

* AT7.1  
  Initial state: The Kinect installed

Test data: Interaction of X s

Instruction: None

Result: The interaction will be played back on Canvas.

**Story Points: 13**

**US3**

As a user, I am able to see a silhouette of my body when I first come into frame of the Kinect camera so that I know how to position myself to interact with the digital canvas.

* AT3.1

Initial state: The software and Kinect are operating

Test data: None

Instruction: Put user’s hand in front of the Kinect with certain distance

Result: An outline of hand is shown on the screen.

**Story Points:  13**

**US1**

As a user, I want my recorded interactions to playback at the same position on the interaction timeline as they were recorded to maintain concurrency.

* AT1.1

Initial state: The Kinect installed

Test data: None

Instruction: Start the digital canvas software  
Result: An example mask & movement interaction is played on screen.

**Story Points:  20**

**US10**

As a user, I must be able to use a single hand to move a mask of the camera around to visually explore the canvas.

* AT10.1

Initial state: The Kinect installed, wait user to put only one hand close to the Kinect

Test data: Kinetic camera, Interactions

Instruction: Move a single hand to any side

Result: The position of mask follows hand.

**Story Points: 20**

**US11**

As a user, I must be able to stop interacting with the canvas so that my interaction is recorded and played back on the canvas.

* AT11.1

Initial state: The Kinect installed, wait user to put two hand close to the kinect

Test data: Kinetic camera, Interactions

Instruction: stop interact with the canvas by putting your hands down

Result: After interacting, the screen shows recorded and played back user’s  visual mask from the interaction.

**Story Points: 20**

**US12**

As a user, I am able to interact with the digital canvas after another user, so that my interaction is blended over the top of previous interactions.

* AT12.1

Initial state: The Kinect installed, wait user to put two hands close to the camera

Test data: Kinect camera, Interactions

Instruction: start interaction after another user has interacted

Result: The new interaction blends onto the top of previous visual camera masking interaction.

**Story Points: 20**

**US8**

As a user, I am able to use two hands to visually create a mask on the canvas so that I can record an interaction.

* AT8.1

Initial state: The Kinect installed, wait user to put two hands close to the Kinect

Test data: Kinect camera, Interactions

Instruction: Put two hands within an interactive space enough so the Kinect can   interact.

Result: A mask of the camera feed is created.

**Story Points: 40**

**US14**

As an observer, I am able to watch all the interactions playback so that the digital canvas is visually appealing.

* AT14.1

Initial state: Software running and user has already interacted

Test data: None

Instruction:  None

Result: All the visual content displayed on the screen.

**Story Points: 40**

Non Functional Requirements

* Stable
* Fast
* Intuitive