**Descriptions**

**Scripts (Object Side)**

**DeckBehavior**

The behavioral script of Deck object. It holds information of all cards in deck and in hand. Not including cards in wild. It updates information of all cards in hand each frame.

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| --- | --- |
| DrawCard() | Initiate a Card object and add it to player’s hand. |
| RenderCardPosition() | Calculate and set positions of all cards in hand. |
| RenderCardSize() | Calculate and set sizes of all cards in hand. |
| SetCardInterval() | Set the distance between two cards in hand. |
| HandToPinch(GameObject cc) | Remove the card from hand and set its status to pinched. |
| InitiateDeck() | Start a deck with 52 poker cards and shuffle it. |
| Shuffle() | Shuffle the deck. |
| SetTargetSize(float val) | Set sizes of all cards in hand. |
| BlackMagic(bool magic) | When there is a snap gesture, set a boolean to spin cards in hand and create a magic light. |

Co-Authors: Ziyin Zhong, Zian Liu

**CardBehavior**

The behavioral script of Card prefab object. Does the framely computation of Card status.

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| --- | --- |
| SetScale(float val) | Set the scale of this Card object. |
| SetTexture(String name) | Set the texture of this card object. String name is from a predefined set of String in Deck. |
| SetRotation(Vector3 rot) | Set the rotation of this Card object. |

Author: Ziyin Zhong

**ChipBehavior**

The behavioral script of Chip object. Does the framely computation of Chip status. Also handles the collision with virtual hand.

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| --- | --- |
| GrabinStart(), GrabinEnd() | Event functions of Grab Chip gesture. |

Co-Authors: Diane Bickram, Ziyin Zhong

**HandPanelBehavior**

The behavioral script of Hand Panel object. Does the framely computation of Panel status.

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| --- | --- |
| SetSize(float val) | Sets the size of the whole panel. |

Author: Ziyin Zhong

**ViewCaption**

Sets a caption object within the scene as temporarily active for a specified amount of time (default is 2.5 seconds).

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| View() | Sets an object as active and resets time for next invocation. |

Author: Diane Bickram

**ViewCaptionStay**

Sets a caption object within the scene as either active or inactive depending on the method called during a gesture state. Also modifies the position of the caption relative to the current hand position.

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| --- | --- |
| ViewStay() | Activates object and is used for the stay state of a gesture. |
| ViewEnd() | Deactivates object and is used for the end state of a gesture. |

Author: Diane Bickram

**Scripts (Gesture Side)**

**DrawCard**

Detect the collision between deck and hand after an inward swipe gesture occurring. If the interaction happens, draw a card.

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| --- | --- |
| onTriggerEnter(), onTriggerExit() | Called if index finger’s tip cube enters deck |

Author: Zian Liu

**PinchGestureRaycast**

A modified version of the PinchGesture script provided in *The Essential Leap-Motion Gesture Detection* asset. Uses raycasting to interact with card objects while the pinch gesture is detected.

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| --- | --- |
| onGestureEnd() | Removes currently selected card from the pinched state, letting it go from the hand. |
| onGestureStay() | Casts a ray from the index finger while the pinch gesture is detected. When the ray hits a card, the card is in a pinched state and its position is modified relative to the current hand position. |

Co-Authors: Diane Bickram, Ziyin Zhong, Zian Liu

**Pistol**

Script that detecting pistol gesture then activate a text UI

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| --- | --- |
| Detected() | Track if only index finger and thumb are extended. During pistol gesture, if right hand rotates along x axis over a certain degree then shoot a bullet. |

Co-Authors: Zian Liu, Diane Bickram

**Snapping**

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| --- | --- |
| Detected() | If only thumb, index and middle fingers are extended and thumb has a small distance with middle finger, consider it as a snap. |

Author: Zian Liu

**ThumbDown**

Script that detecting thumb down gesture then activate a text UI

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| --- | --- |
| Detected() | Track if only thumb finger is extended, and its direction is approximate downward. |

Author: Zian Liu

**External Assets Used**

The Essential Leap-Motion Gesture Detection

<https://assetstore.unity.com/packages/tools/input-management/the-essential-leap-motion-gesture-detection-111791>

Free Little Games Asset Pack

<https://assetstore.unity.com/packages/3d/props/free-little-games-asset-pack-125089>

Objectify: Highlight and Loot

<https://assetstore.unity.com/packages/vfx/shaders/objectify-highlight-and-loot-22321>