

# Millionaire Luck

*Game's rules, setting, and gameplay is currently being design and are subjected to alteration in the development.*

## 1. Overview

Millionaire Luck is a 2D 4-players multiplayer digital board game. Players take turn to moves in block decided by dice. The goal is to gain score or complete objective. Incorporating "question & choice answers" into one of a scoring system by both participating in or having players "battle" it out to steal scores. *This game design took a lot of inspiration from "[100% Orange Juice](#)"*

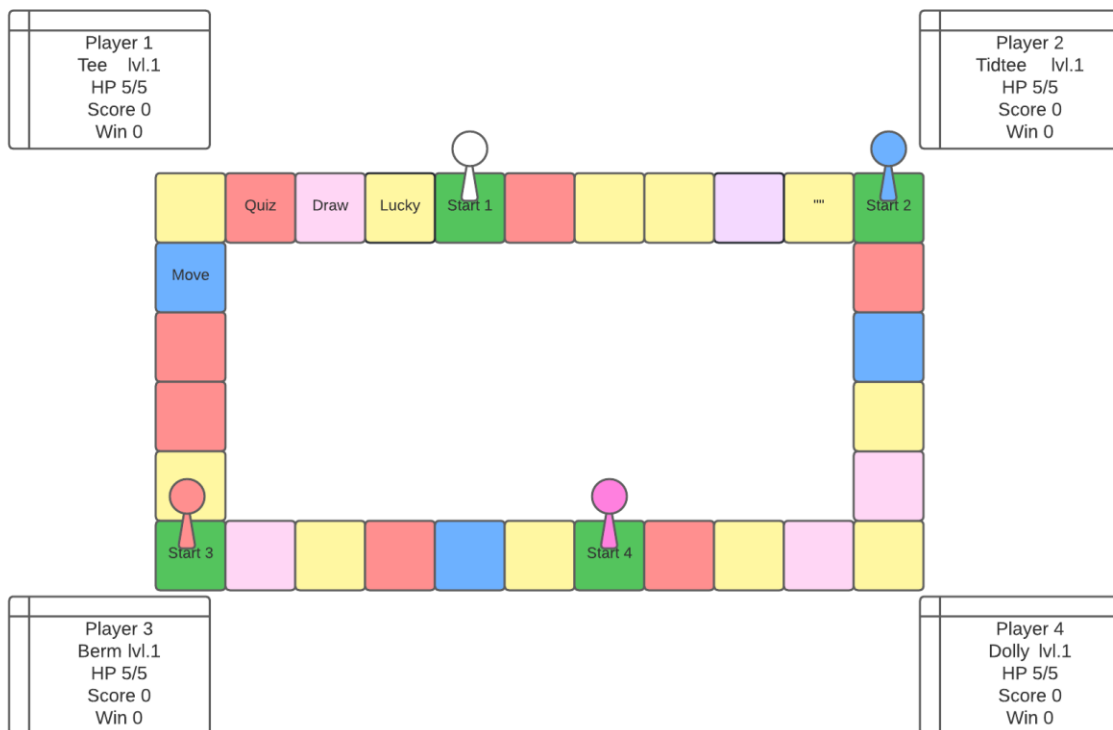


Figure 1: Draft of game interface

## 1.1 Vision Statement

- **Easy to get into** figure out as they play, and one mouse gameplay
- **Differentiable questions** divide question into categories and difficulty levels
- **"Luck can only go so far"** player can get score by good strategy, wit, and so is good luck

## 1.2 Target Audiences

From age range of teen to adult, questions will require prior knowledge in the matter of both general and specific subjects

## 2. Core Gameplay

### 2.1 **Players**

#### 2.1.1 Overview

Players are represented by a human contestant avatar. Each player starts on the **Starting Block**. With following attributes

Var	Name	Description
<b>hp</b>	Hit points, Health	<ul style="list-style-type: none"><li>• Have max amount, player need to roll dice equal or above to 5 when hp drop to 0.</li><li>• <i>Lose hp from losing Quiz Battle</i></li></ul>
<b>score</b>	Score	<ul style="list-style-type: none"><li>• Gain from <b>Quiz</b> and other sources <i>(Score Block, Quiz Battle, Round End)</i></li></ul>

<b>win</b>	Quiz round won	<ul style="list-style-type: none"> <li>Keep track of amount of <b>Quizzes</b></li> <li><b>Battle</b> won</li> </ul>
<b>lvl</b>	Level	<ul style="list-style-type: none"> <li>Gain from completing objective</li> <li>Getting max level is the way to win game</li> </ul>

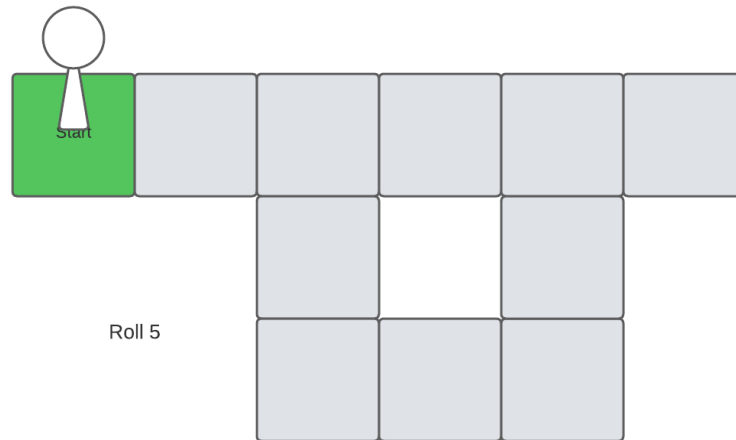
Game is split into round, each round each player perform 1 turn. Keep in mind that action interface can be access easily using only mouse, actions that are available to be performed are

Action	Description
<b>Move</b>	<ul style="list-style-type: none"> <li>Roll the dice and move with respect to the number rolled</li> </ul>
<b><i>Quiz Battle</i></b>	<ul style="list-style-type: none"> <li>Prompted when moving pass another player. <i>the player will also stay that block that battle happen</i></li> <li>Initiate a duel of quiz</li> </ul>
<b>Card</b>	<ul style="list-style-type: none"> <li>Using cards in the hand. Can be done during turn, or before <b>Quiz Battle</b></li> </ul>
<b><i>Stay at Checkpoint</i></b>	<ul style="list-style-type: none"> <li>Prompted when passing <b>Starting Block</b></li> <li>Staying will go thru <b>Objective Check</b></li> </ul>

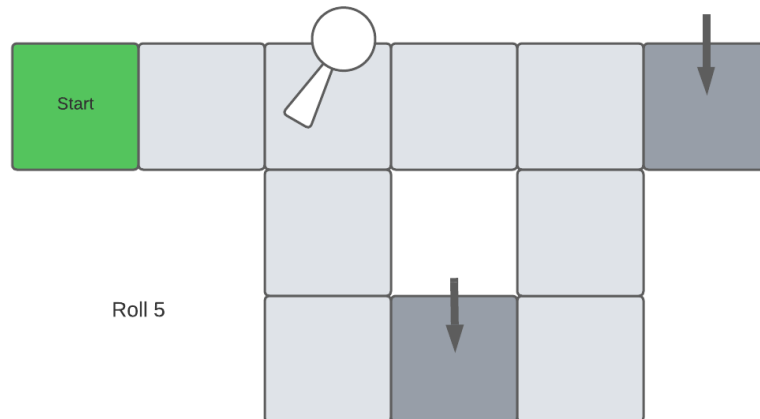
## 2.1.2 Player Action – **Move**

2.1.2.1 Throw the dice, and move for total of numbers on the dice (1-6)

2.1.2.2 Board can have intersection within the path, player can choose which path to go



*Figure 2: Roll 5*



*Figure 3: Approaching an intersection, showing choices possible*

## 2.1.3 Player Action – **Stay at Checkpoint**

- Can only be performed while the player is passing their **Starting Block**

- Act to turn in quest/objective after completing them, to advance to next level. Player also regains +1 hp in that Block

#### 2.1.4 Player Action – **Card**

- Performing this action activate the card effect and end their turn

#### 2.1.5 Player Knock Out (KO)

- When hp drop to 0, the next turn of that player, they need to roll dice with value of 5 or up to be revive and back into the game

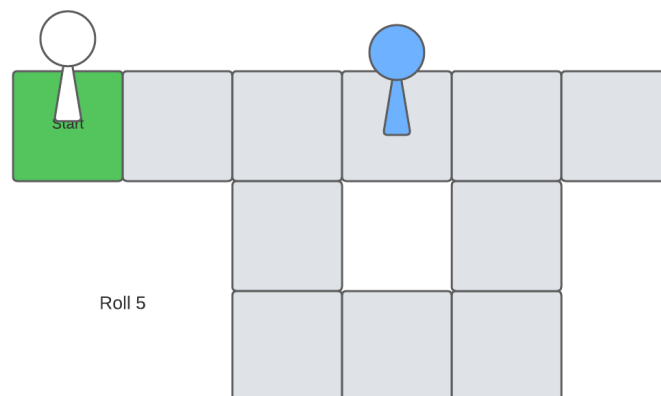
#### 2.1.6 **Quiz Battle**

Quiz Battle can occur in conditions, such as, stopping at **Battle Block**, and

Player Action – **Quiz Battle**

##### 2.1.6.1 Player Action – **Quiz Battle**

- After moving, if passing another player. Pop-up will occur to ask if they want to initiate battle with that player
- Deciding to battle mean player will stop at that block



*Figure 4: Rolled 5, another player ahead in upper path*

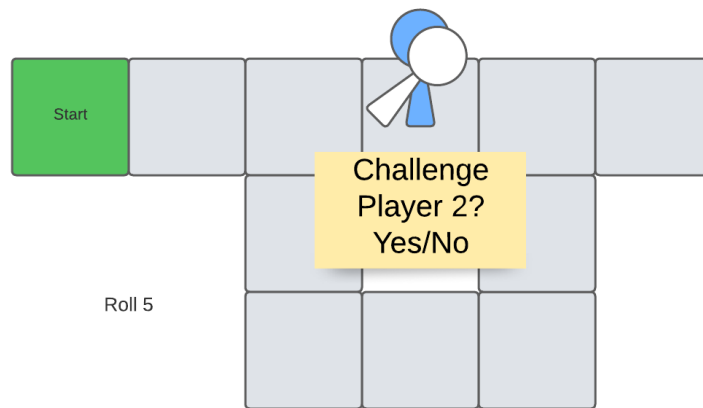


Figure 5: Choosing the upper path

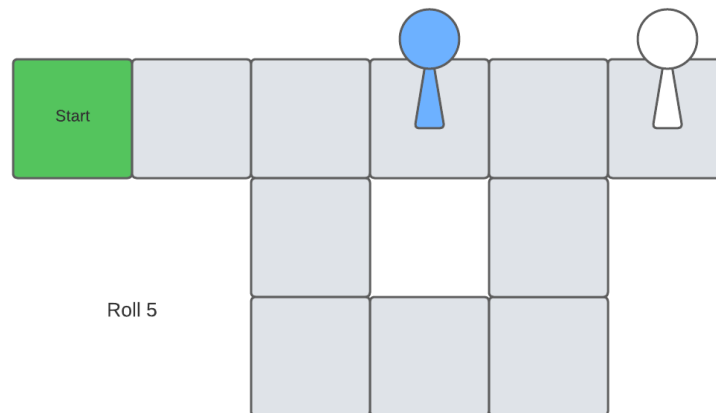


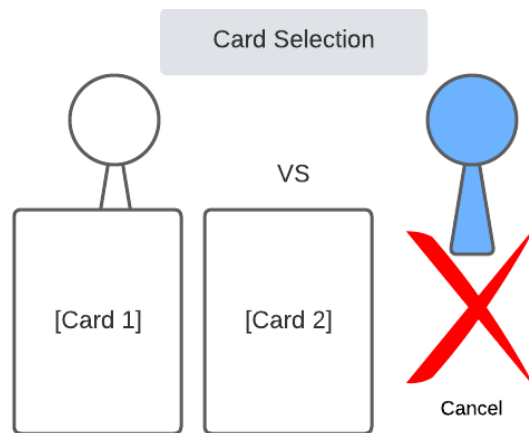
Figure 6: Choosing No

### 2.1.6.2 Getting into **Quiz Battle**

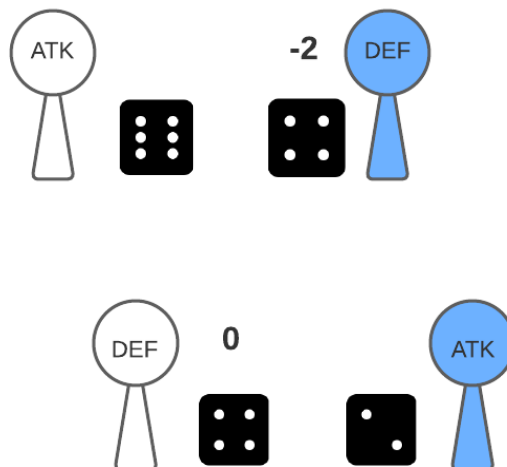
- Getting into battle will first let each players choose their card to play if they have a card. And after that, they will both take turn to roll their dice in a back-and-forth attack and defend. The players in the battle take turn to attack for at least one turn each

Attacker rolls an attack, Defender rolls a defend, **if attack meet or exceed defend, the attack hit with the value from 1 to  $attack - defend$ ,**

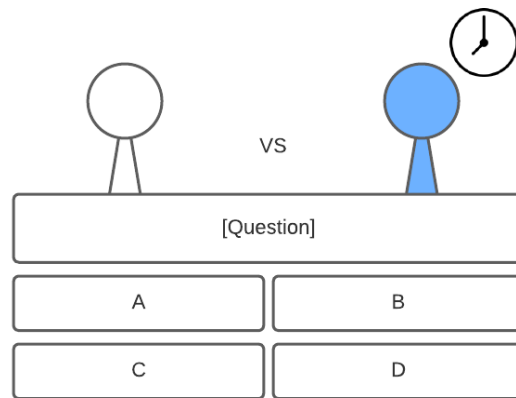
*ex. Player 1 attack with roll 4, Player 2 defended with 4, result in Player 1 hit Player 2 with value 1*



*Figure 7: Card Selection before dice*



- After both sides decided, they may be put into a timed quiz. Each of them may/may not receive a question depending on the value of the hit, and question may be different



#### After Quiz Battle Process

- If the answer is right, the contestant walks away with no damage done, likewise if the answer is wrong, that contestant take hp damage equal to the hit value.
- If the hit was fatal (result in KO), the other contestant steal half of the contestant **score and +2 Wins**
- If both the hits were fatal, no one get anything

## 2.2 Winning the match

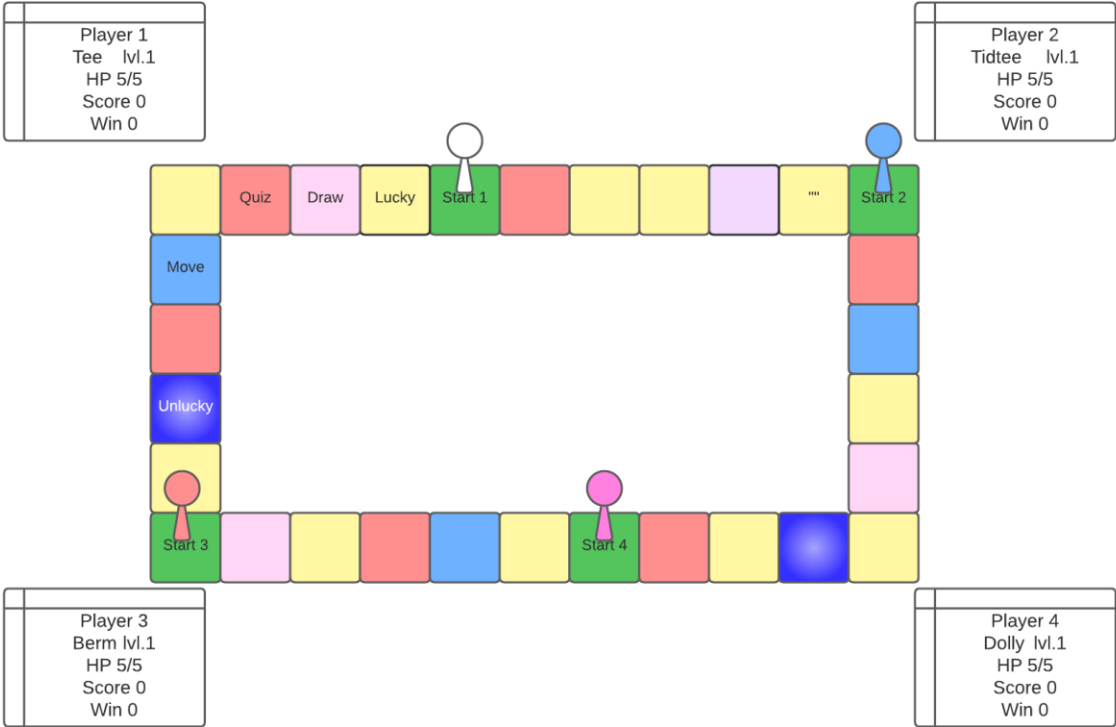
Player may win when they reach the max **lvl** there is in the game, which can be achieve by completing objectives which can either be **Score needed** or **Number of Win** where it is the condition that player may proceed to next level

Level	Score needed	Number of Win
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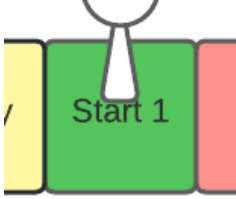

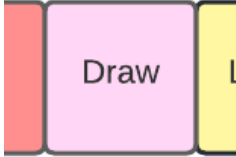
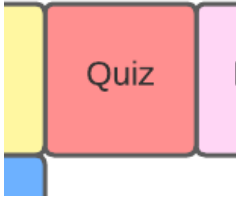
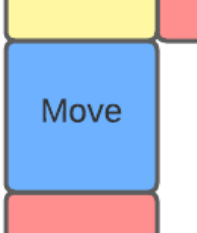



1	10	
2	30	2
3	60	5
4	100	9
5	150	14

3. Environment



### 3.1.1 Types of Blocks

Characteristic/color	Name	Description/Effect
	<b>Starting Block</b>	<ul style="list-style-type: none"> <li>- Primary Block for starting position and order of each contestant</li> <li>- Player can turn in their objective at their <b>Starting Block</b></li> </ul>
	<b>Luck Block</b>	<ul style="list-style-type: none"> <li>- Player rolls their dice and get <b>score +=</b>  <math display="block">Total\ Roll \times (1 + \frac{round\ number}{5})</math> </li> </ul>
	<b>Draw Block</b>	<ul style="list-style-type: none"> <li>- Player gets a random card</li> </ul>
	<b>Quiz Block/ Battle Block</b>	<ul style="list-style-type: none"> <li>- Force player into <b>Quiz Battle</b> with NPC</li> <li>- Winning grant 1 win and score +=  <math>10 \times round\ number</math> </li> </ul>
	<b>Move Block</b>	<ul style="list-style-type: none"> <li>- Enable one more Player Action – <b>Move</b> to be perform in that turn</li> </ul>

	<b>Unlucky Block</b>	<ul style="list-style-type: none"> <li>- Player rolls their dice and lose</li> </ul> <p><b>score +=</b></p> $Total\ Roll \times (1 + \frac{round\ number}{2})$
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- All calculation are just estimates, need rebalance

### 3.1.2 Cards

Cards are split into 2 types, **Quiz Card** which can be activated before **Quiz Battle**, and **Activate Card** which can be activated while not in the phase of Quiz Battle (include before)

Card Name	Activate Condition	Description/Effect
<i>Half: Half</i>	Quiz Card	If this unit go into Quiz Battle, reduce the choice to half amount
<i>Burnout Attack</i>	Quiz Card	+1 attack and -1 defend
<i>Help ME!</i>	Quiz Card	Force all the other contestants to help you by asking them what they answer

<i>SPRINT!</i>	Activate Card	Use 2 dice to move this round
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### **3.1.3 Questions**

Question should be split into their category and into difficulty level from 1 to 5 (this is in relation to the list of different of value that dice can give). But, we may use only 3 level of difficulty depending on questions, so that the questions are more vary in player experience.

## **4. System and Features**

### **4.1 To be implemented**

#### **4.1.1 Online Multiplayer**

- <https://docs-multiplayer.unity3d.com/>

## **5. Tools**

### **5.1 Unity**