

<CHRISTOPHER D. SANDS>

<GROUND WAR>

## TABLE OF CONTENTS

<Christopher D. Sands>	1
<Ground War>	1
Table Of Contents	2
Game Description	3
Glossary	3
Target Audience	3
Number of Players	3
preliminary design – Assignments 2.1 and 2.2	3
Outline	3
Flowcharts	5
Meaningful Action Analysis (MAA)	8
Board Design	9
Component Pieces	11
Detailed Design & testing – Assignment 3 (This section will not be used until week 3)	11
Play Testers Stage 1	11
Test Stage 1 Results	12
Test Stage 1 Reflection	13
Detailed Rules for Players	13
Play Testers Stage 2	14
Test Stage 2 Results	15
Test Stage 2 Reflection	16
Detailed Design & testing – Assignment 4	16
New Mechanic	16
Play Testers Stage 3	16
Test Stage 3 Results	16
Test Stage 3 Reflection	18
Play Testers Stage 4	18
Test Stage 4 Results	19
Test Stage 4 Reflection	20
Final Reflection	20

## GAME DESCRIPTION

War grounds is a competitive strategy game that pits two player against each other in a game of war over territories in an arena. Players take turns declaring attacks on each other's controlled territories using their battle decks. The goal is to capture your opponent's home base or control the territories with the most victory points at the end of the 20 round limit to win the game.

## Glossary

**Territories:** Square on the board that are won by compering cards and the winner is the closest to the number printed on it.

**Battle Deck:** A deck of 33 cards that are drawn from by their respected players for form their hades.

**Arena:** The board that the game is played on.

## Target Audience

**Strategy Gamers**

**Competitive Gamers**

**Ages: 8-12**

## Number of Players

2 Player

## PRELIMINARY DESIGN - ASSIGNMENTS 2.1 AND 2.2

## Outline

**Goal:**

The goal of Ground War is to either capture the opponents base or control the territories with the most victory points at the end of the turn limit.

**Rules:**

- A round has two turns. On one player one is the attacker and on the other turn player 2 is the attacker
- At the start of a turn, both players draw up to the max hade size of five.
- If a battle deck runs out, shuffle their respected discard piles and continue drawing as usual.
- The active player is the attacker.

- The attacker chooses a territory to attack that has a path back to their base though touching territories by placing one of their makers on the territory.
- The attacker may attack their opponents base only if they have a minimum of 3 cards in hand.
- The rules for comparison are determined by the territory attacked.
- The attacker places a card from their hand face down.
- The defender places a card from their hand face down.
- If the attacker wins, they claim the territory, and the defender removes their maker from the territory. The attacker may then declare another attack if they still have card in their hand or end their turn.
- If the defender wins, the attacker removes their maker from the territory, and their turn ends.
- Defender wins a draw.
- The round marker advances once both players have had a turn as attacker.
- A game consists of 20 rounds.
- The game ends when a player takes the other's base, or the game reaches the end of the 20th round.
- The player that captures their opponent base is the winner.
- When the game ends due to round limit, the player with the most territories is the winner.

#### Actions

- Draw
- Attack
- Defend
- Card Pick
- Combat
- Pass

#### Transitions

- Draw phase
- Declaration of attack
- Combat

#### Items

- Red battle deck (33)
  - Zero (3)
  - One (3)
  - Two (3)
  - Three (3)
  - Four (3)
  - Five (3)
  - Six (3)
  - Seven (3)
  - Eight (3)
  - Nine (3)

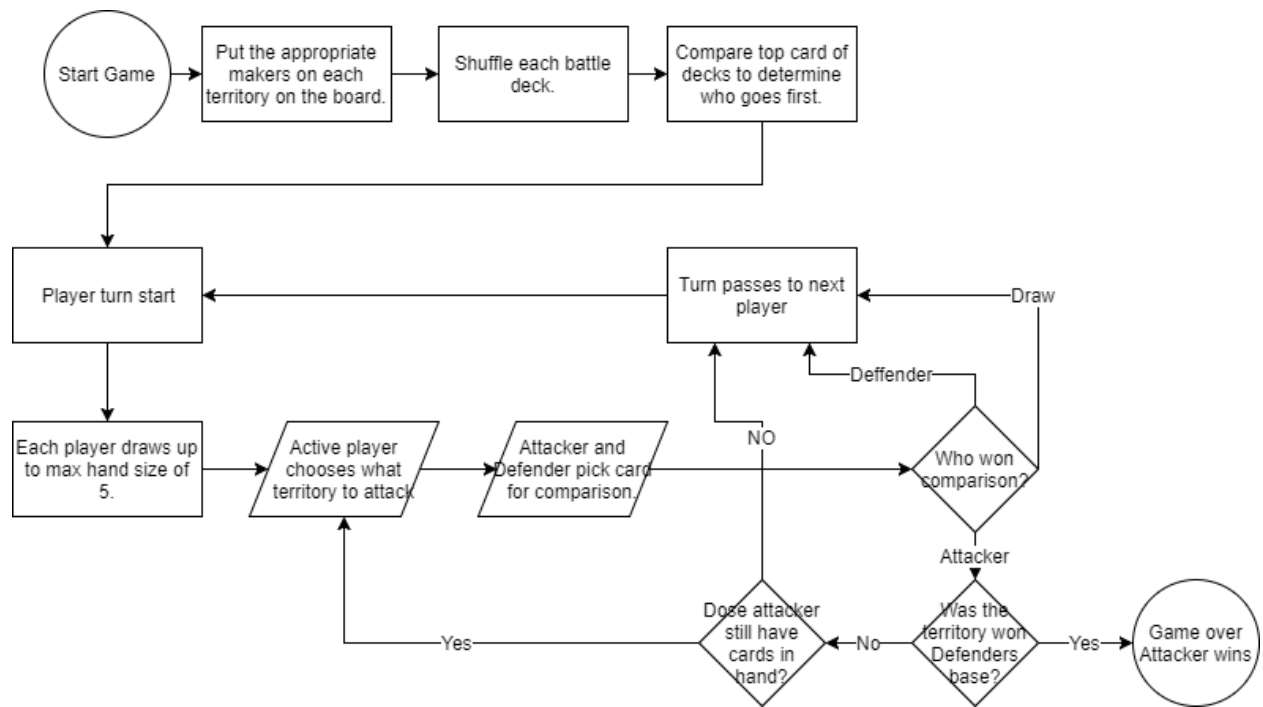
- Ten (3)
- Blue battle deck (33)
  - Zero (3)
  - One (3)
  - Two (3)
  - Three (3)
  - Four (3)
  - Five (3)
  - Six (3)
  - Seven (3)
  - Eight (3)
  - Nine (3)
  - Ten (3)
- Red markers (28)
- Blue markers (28)
- Black round marker
- Game board

#### Setup

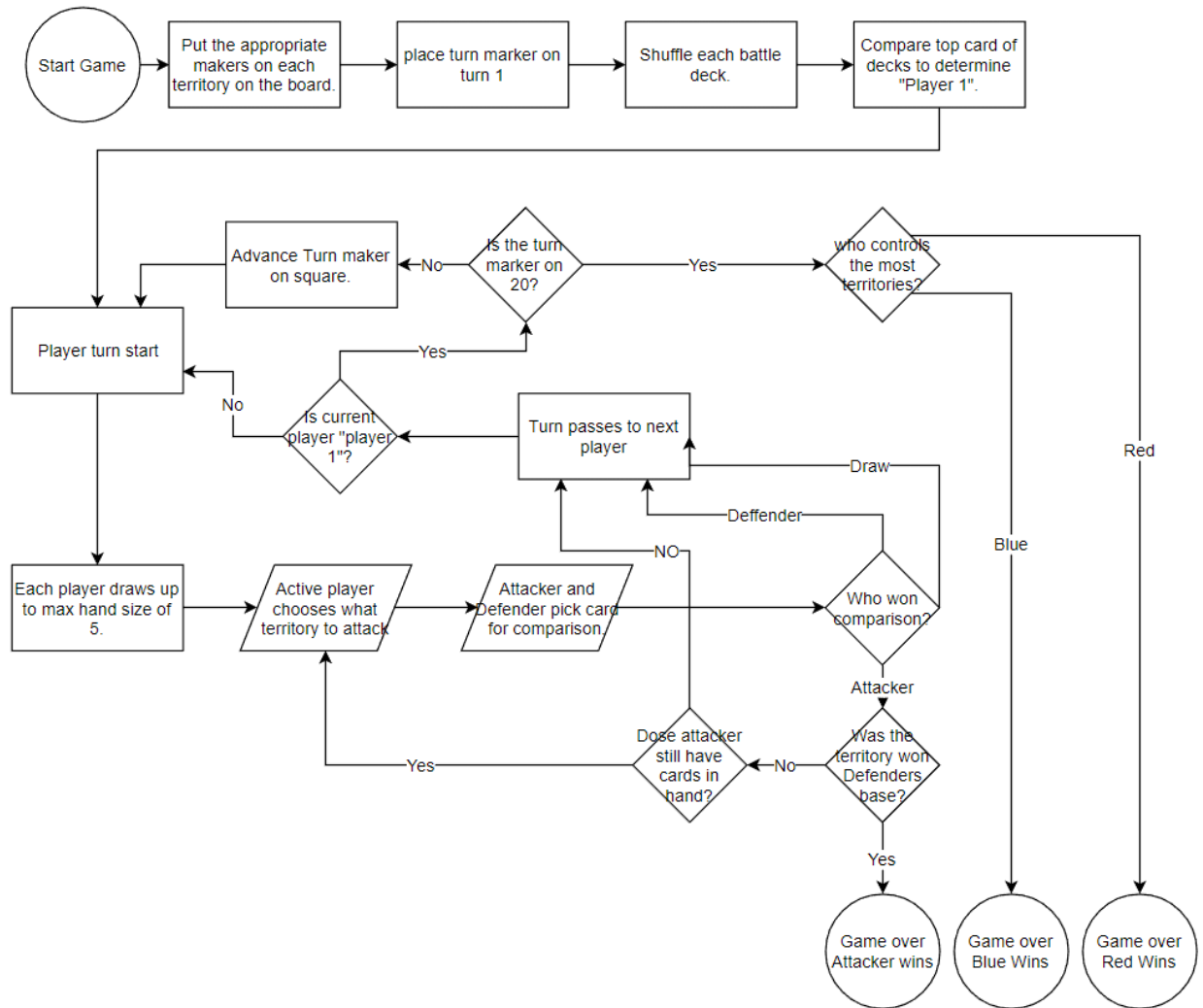
- Place red markers on all territories on the red side of the field.
- Place blue markers on all territories on the blue side of the field.
- Place round marker on round 1
- Shuffle both blue and red battle decks.
- Players determine who goes first by comparing top card of their battle decks.

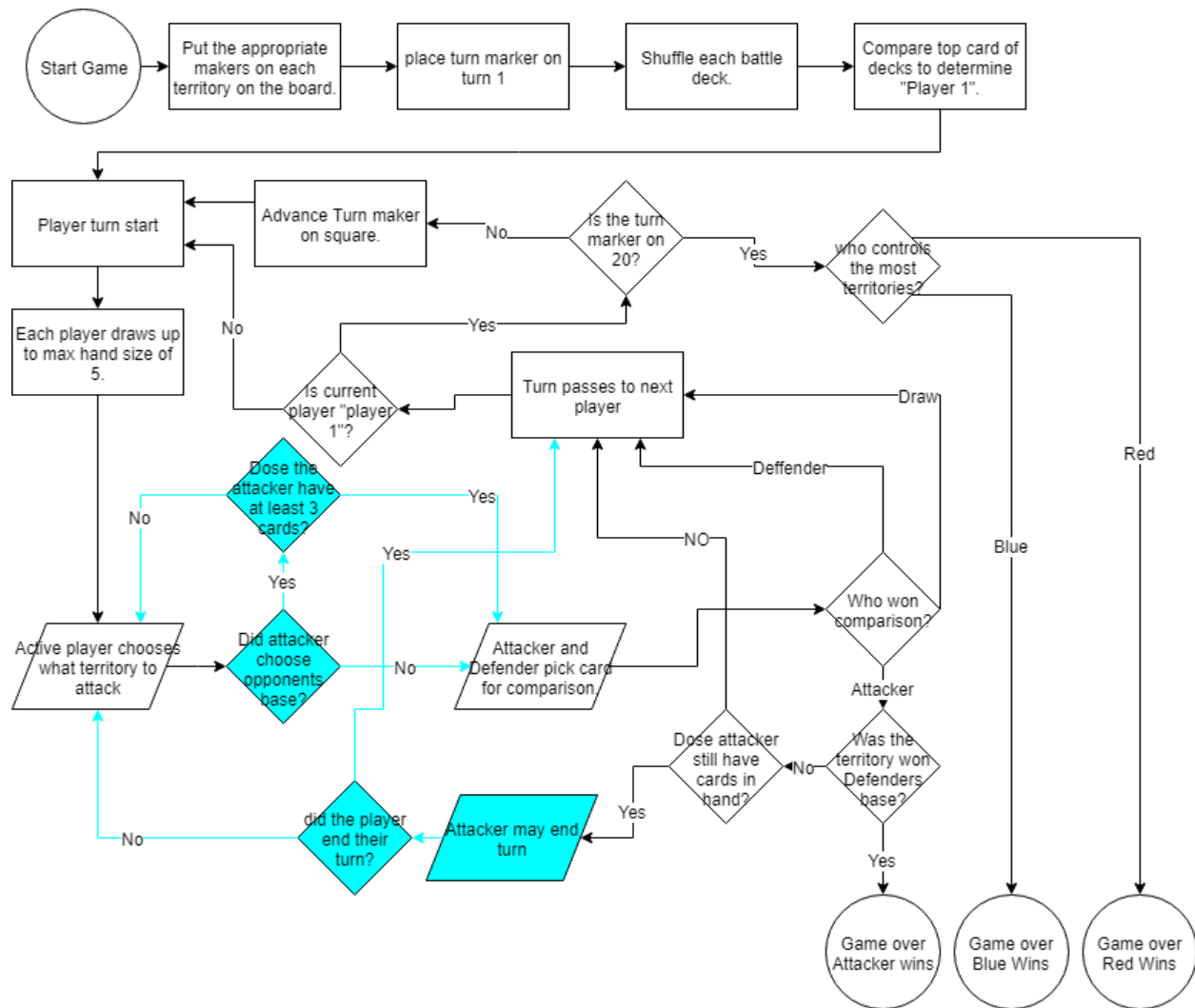
## Flowcharts

V1



V2





## Meaningful Action Analysis (MAA)

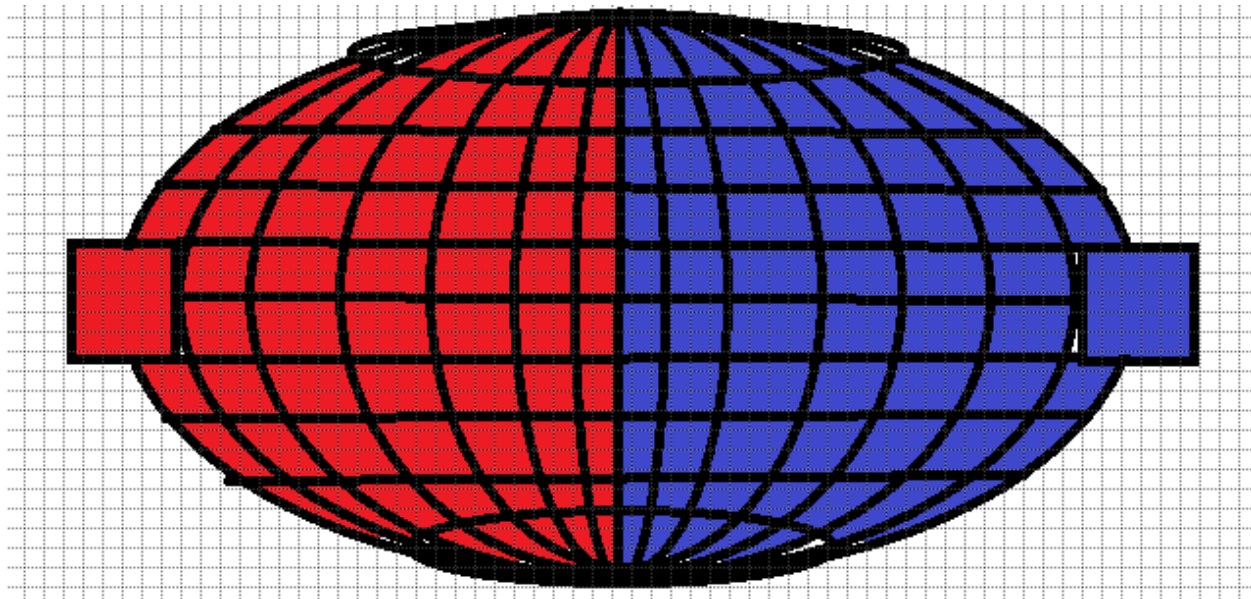
- Draw: Drawing is not a meaningful decision because it is not a decision and completely random.
- Attack: Choosing a territory is a meaningful decision because you have multiple places that you can attack, and you chose the one that you feel you have the best chance of winning.
- Defending: You don't have a choice of whether to defend or not, so it is not a meaningful decision.
- Card Selection: When defending and attacking you have to choose the best card in your hand for the particular situation while also planning on possibilities for both the next attack and future turns because unused cards remain in your hand. Knowing all the cards in your hand and what the goal of the battle making card selection a meaningful decision.



- Advancing: the round marker is advanced whenever both players have had their turn attacking meaning that advancing is not a meaningful action.
- Pass: A player may pass their turn after attacking at least one territory.

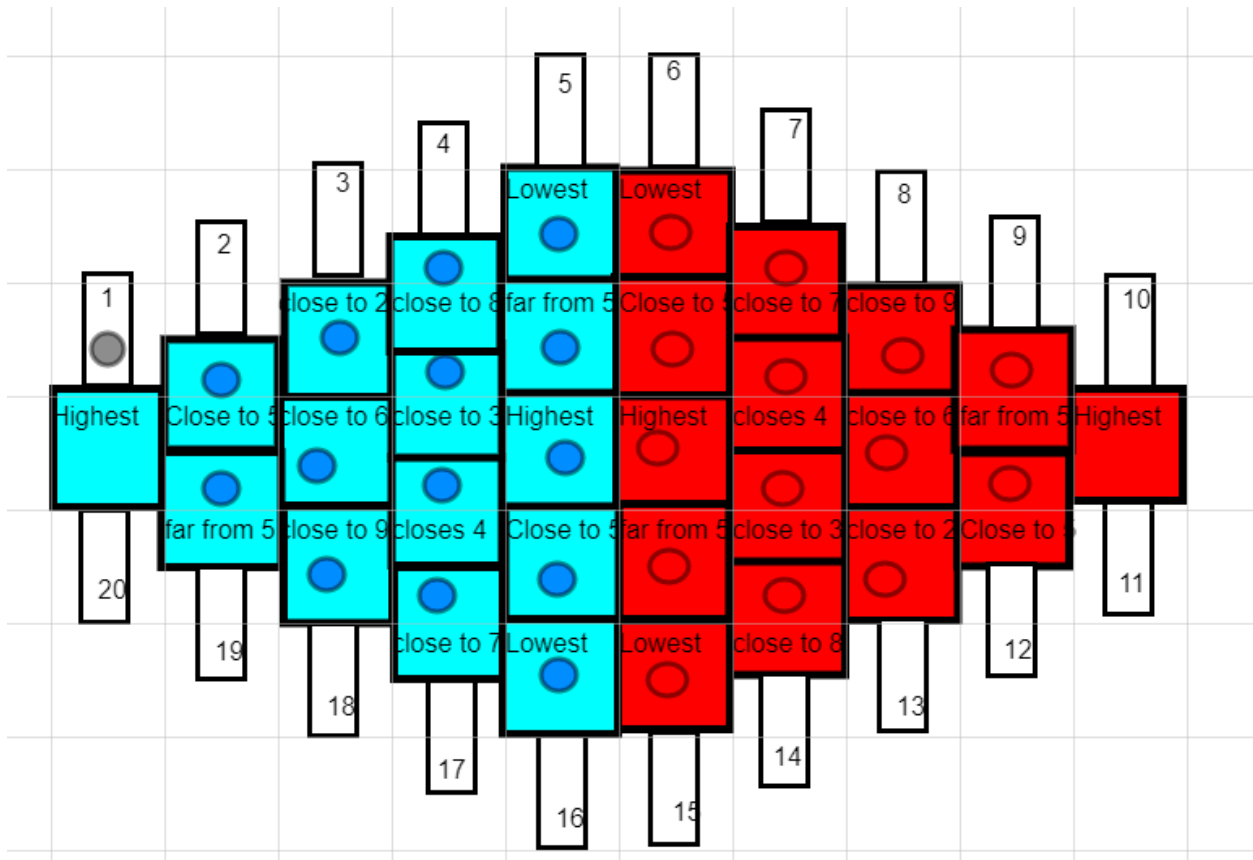
## Board Design

V1

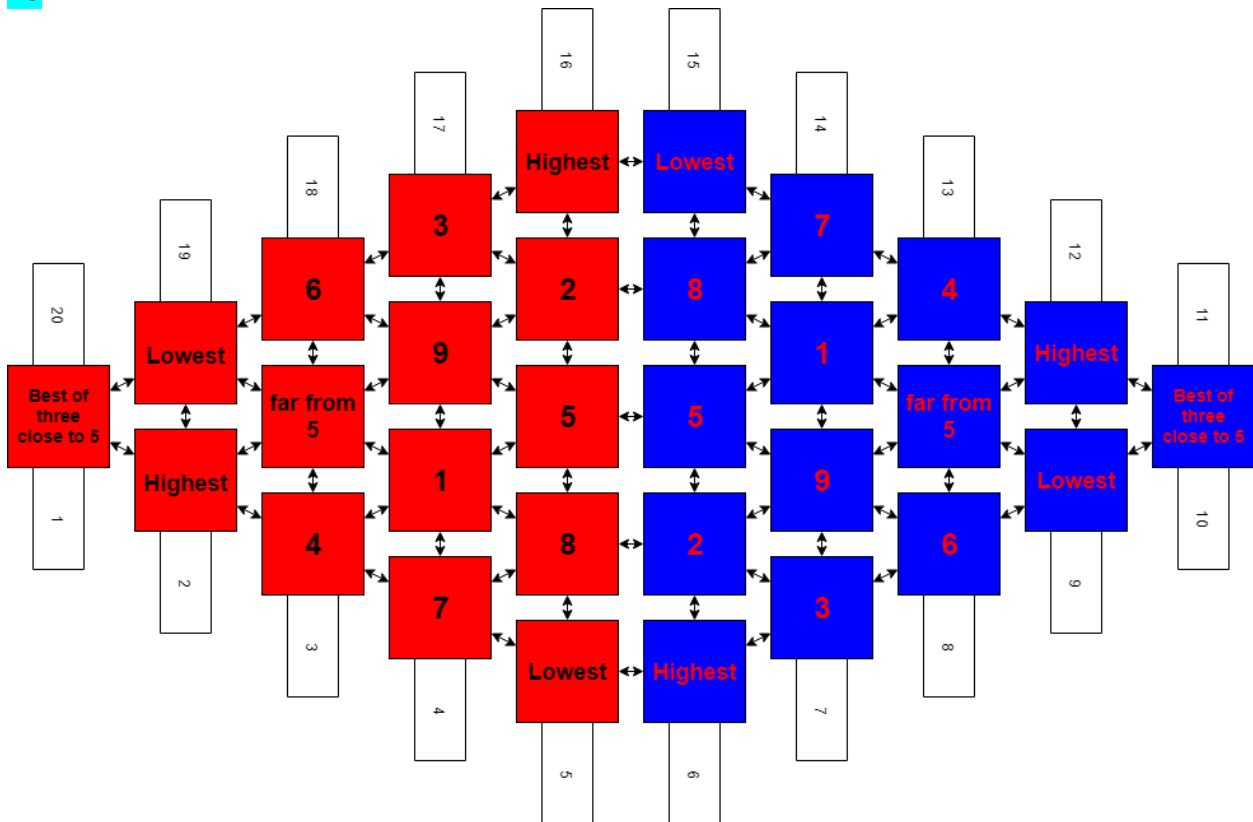


V2





V3



## Component Pieces

- Red battle deck (33)
  - Zero (3)
  - One (3)
  - Two (3)
  - Three (3)
  - Four (3)
  - Five (3)
  - Six (3)
  - Seven (3)
  - Eight (3)
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  - Zero (3)
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  - Eight (3)
  - Nine (3)
  - Ten (3)
- Red markers (28)
- Blue markers (28)
- Black Round marker
- Game board

## DETAILED DESIGN & TESTING - ASSIGNMENT 3 (THIS SECTION WILL NOT BE USED UNTIL WEEK 3)

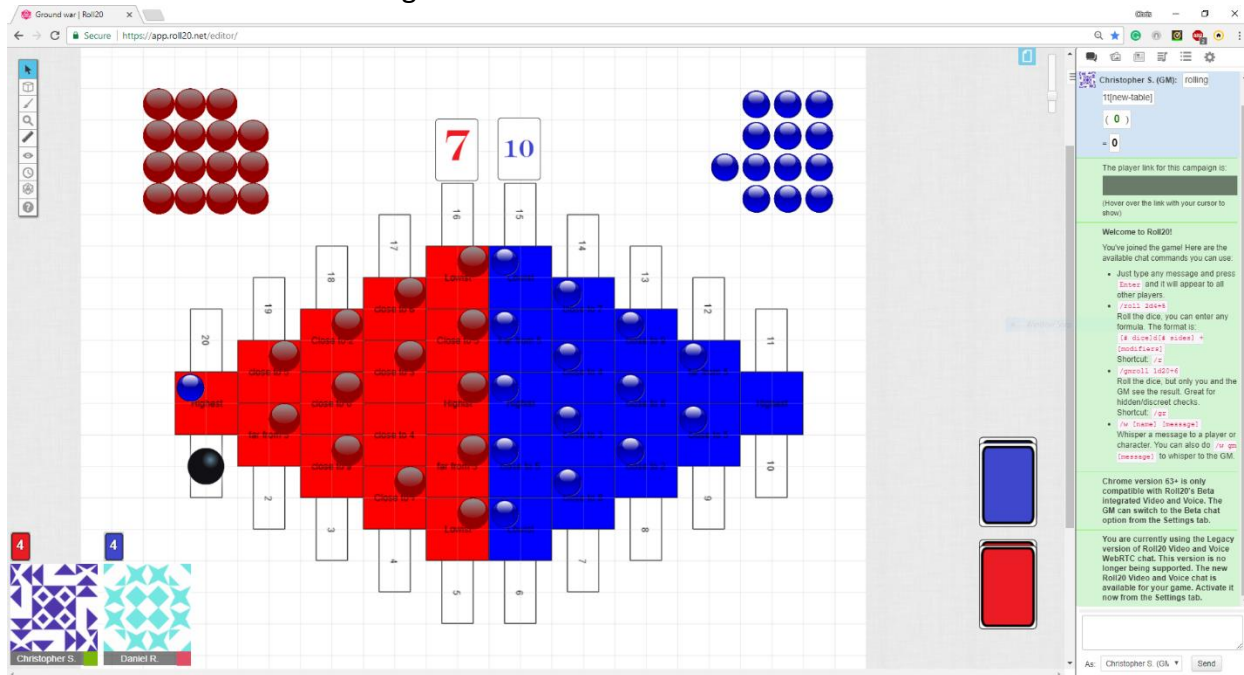
### Play Testers Stage 1

One tester:

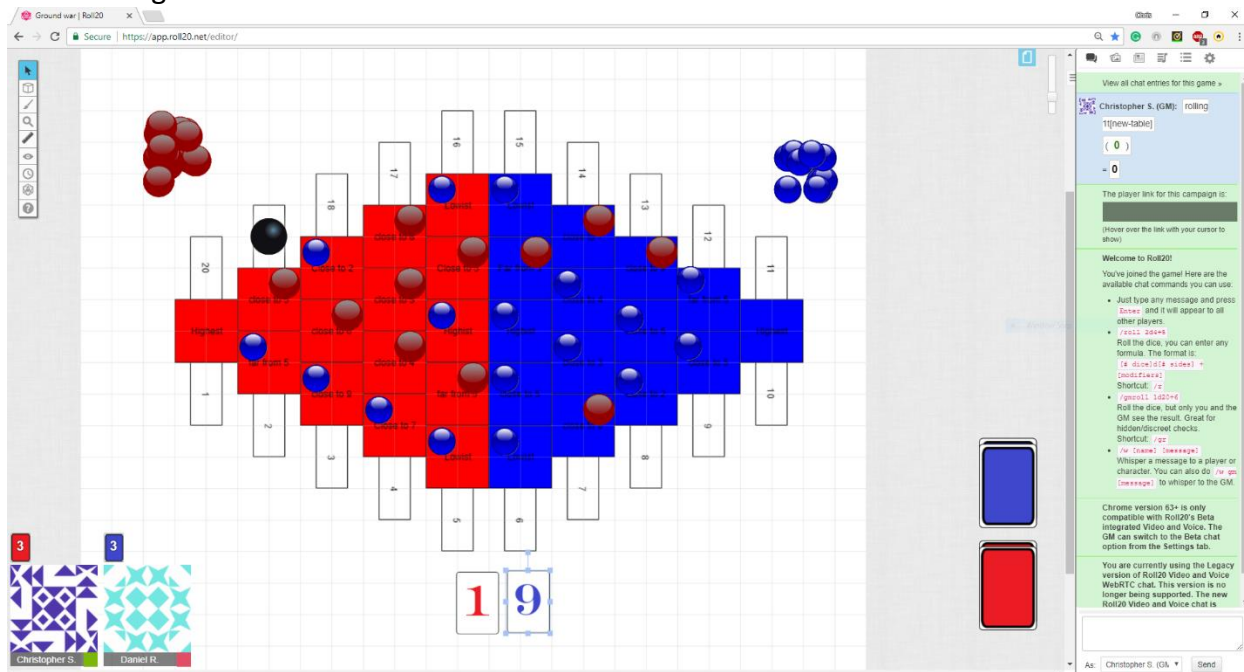
Daniel Ruiz a 22 years old male and fan of the board game Risk. Participated in the play test online at roll20.net.

## Test Stage 1 Results

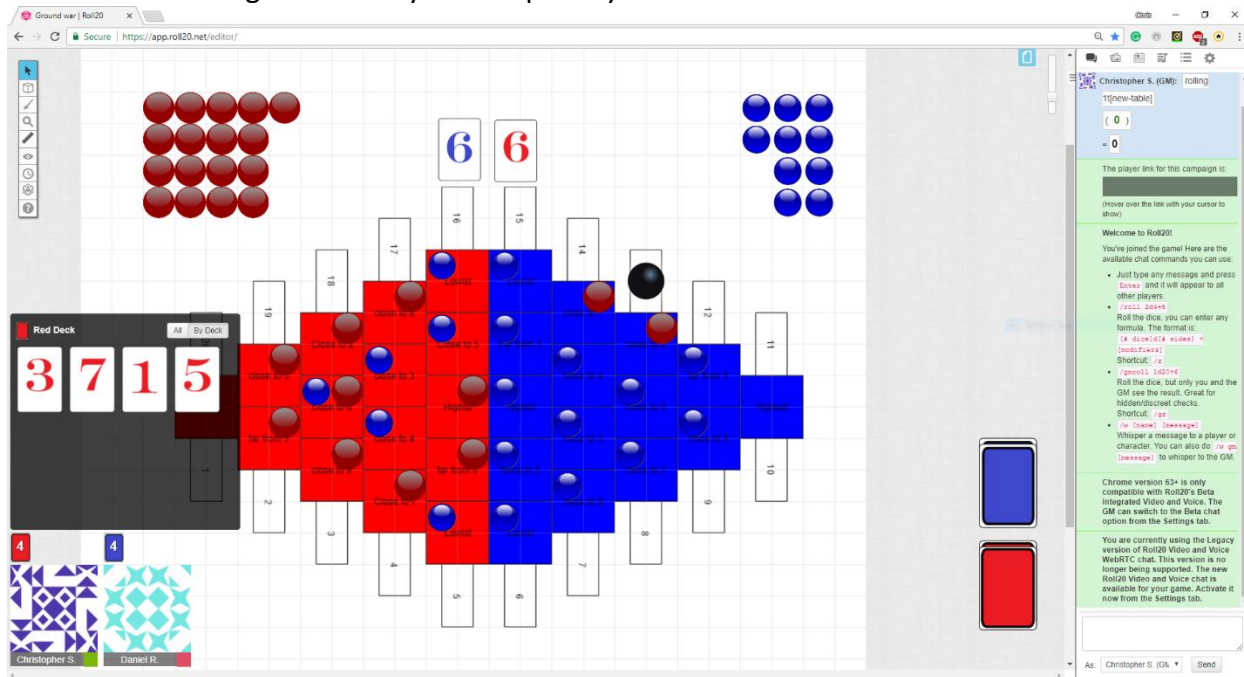
The original goal of this test was to determine if the 20-round limit was an adequate cut off. This test only used two players Daniel Ruiz and myself. We played 5 games together two ended due to round limit and the rest by base capture. There was a 6<sup>th</sup> match that ended on turn one due to Daniel attacking my base on first turn do to no rule stating which territories are available for attack. The goal of the test was achieved, and the length of the games felt correct and 20 rounds was confirmed to be a good cut off.



Play test where Daniel Won immediately by taking advantage of the lack of clear rules determining what territories are available for attack.



Last turn before a game over by base captor by Daniel on turn 19.



Draw to end round 13 of a game that ended due to round limit.

## Test Stage 1 Reflection

- Some issues were raised while play testing one of which is that there was now rule for which territories can be attacked. This caused one game to end at the very beginning. This can be addressed by clarifying that a player can only attack territories touching a controlled territory with a path back through controlled territories to the players base.
- Daniel commented of the fact that on squares labeled furthest form 5 that the highest card in the deck (10) beats the lowest card (1). This can be addressed by adding another lowest card (0). However, this may call for a board redesign to accommodate another card. This must be tested and most likely will do so in stage 3 as this feels like a smaller issue than the others.
- Daniel had an issue with being able to read the text on the squares. This can be fixed either by increasing the font size or the color to give beater contrast. I am lean towards a bigger font as to not change the game's red vs blue aesthetic.
- Daniel also commented that arrows would help players understand which territories are available for attack. Doing this may help but it may make the board to cluttered and confusing.

## Detailed Rules for Players

Set up:

- Place red markers on all territories on the red side of the field.

- Place blue markers on all territories on the blue side of the field.
- Place Round marker on Round 1
- Shuffle both blue and red battle decks.
- Players determine who goes first by comparing top card of their battle decks.

#### A Round:

- A round has two turns. On one player one is the attacker and on the other turn player 2 is the attacker
- At the start of a turn, both players draw up to the max hand size of five.
- If a battle deck runs out, shuffle their respected discard piles and continue drawing as usual.
- The active player is the attacker.
- The attacker chooses a territory to attack that has a path back to their base though touching territories by placing one of their makers on the territory.
- The attacker may attack their opponents base only if they have a minimum of 3 cards in hand.
- The rules for comparison are determined by the territory attacked.
- If the attacked territory is the base the comparison is best out of three done one comparison at a time.
- The attacker places a card from their hand face down.
- The defender places a card from their hand face down.
- If the attacker wins, they claim the territory, and the defender removes their maker from the territory. The attacker may then declare another attack if they still have card in their hand or end there turn.
- If the defender wins, the attacker removes their maker from the territory, and their turn ends.
- Defender wins a draw.
- The round marker advances once both players have had a turn as attacker.

#### End Game:

- A game consists of 20 rounds.
- The game ends when a player takes the other's base, or the game reaches the end of the 20th round.
- The player that captures their opponent base is the winner.
- When the game ends due to round limit, the player with the most territories is the winner.

## Play Testers Stage 2

#### Two Tester:

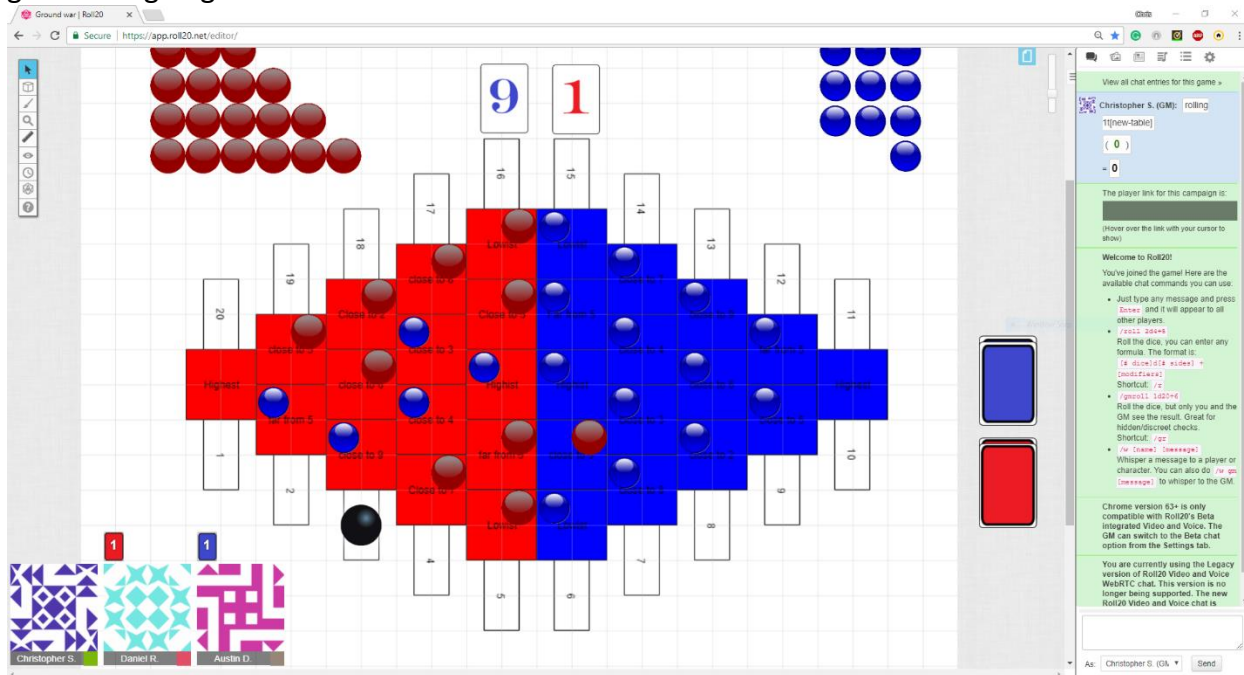
Austin Davis a 29-year-old male and a fan of Realtime strategy games. Participated in play test online at roll20.net.

Daniel Ruiz a 22-year-old male and fan of the board game Risk. Participated in the play test online at roll20.net.

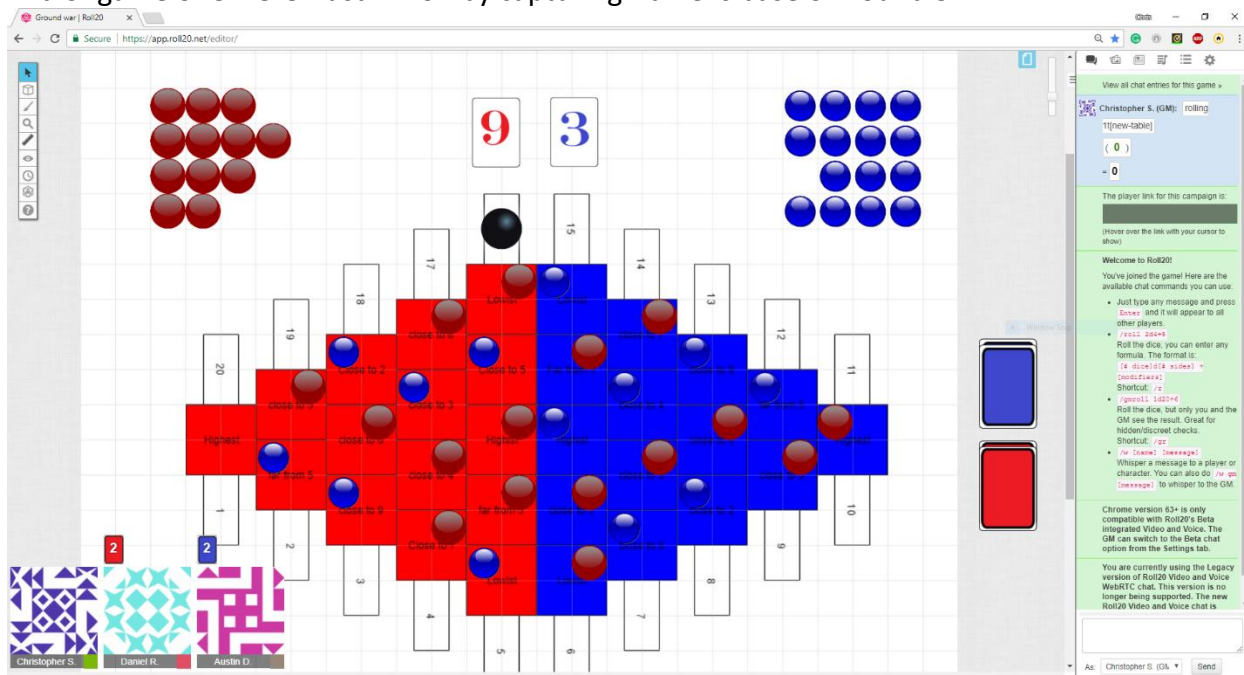


## Test Stage 2 Results

The main goal of this test was to determine if a game could be played without my interference with only the given instructions. The test was successful in this regard and the players were able to get several games in in the 2 hours allotted with little communication from me besides addressing comments from them about the game's mechanics and their opinion on how the game was going.



End of game one were Austin won by capturing Daniel's base on round 3



End of game: Daniel wining by taking Austin's base on round 16

## Test Stage 2 Reflection

- The rule for attacking territories was understood without the use of arrows on the board. However, I now see that it is a better choice to include them to speed up the game play by giving visual hints on what territories are available for attack.
- The issue with far from 5 emerged from both plays. This makes me believe that the addition of a (0) is now necessary and will be added in the next stage.
- An issue that I noticed was that it is possible for a player to win on turn one by getting very lucky with the draws and having the cards to go straight for the base. I will try remedying this by making the comparison for base capture a best of three and require the attacker to have three cards to attack the base.
- Austin showed to be displeased in the fact that he had to continue attacking until a defeat or he ran out of cards. This can be addressed by giving the attacking player the option of ending their turn whenever they want.
- The issue of board being hard to read the comparison on the blue side is now confirmed to be a problem as both players had a hard time reading the black text. The color of the text needs to be changed. The change will be to red to keep with the theme.

## DETAILED DESIGN & TESTING - ASSIGNMENT 4

### New Mechanic

The new mechanic I am adding is to attack the opponents base the attacker must have three cards and the comparison for the bases are the best out of three instead of just one. This mechanic is intended to not allow a game to end in one turn and prevent players from being turned off the game by experiencing a squash match.

There is an additional mechanic being added after play test stage 3. The mechanic is the ability for the attacker to pass their turn after attacking at least one territory. This addresses two issues that accrued in playtesting. One is that players didn't like being forced to attack till they failed. Another is that if you attacked and had no more valid moves the rules would never pass the turn to the next player.

### Play Testers Stage 3

One tester

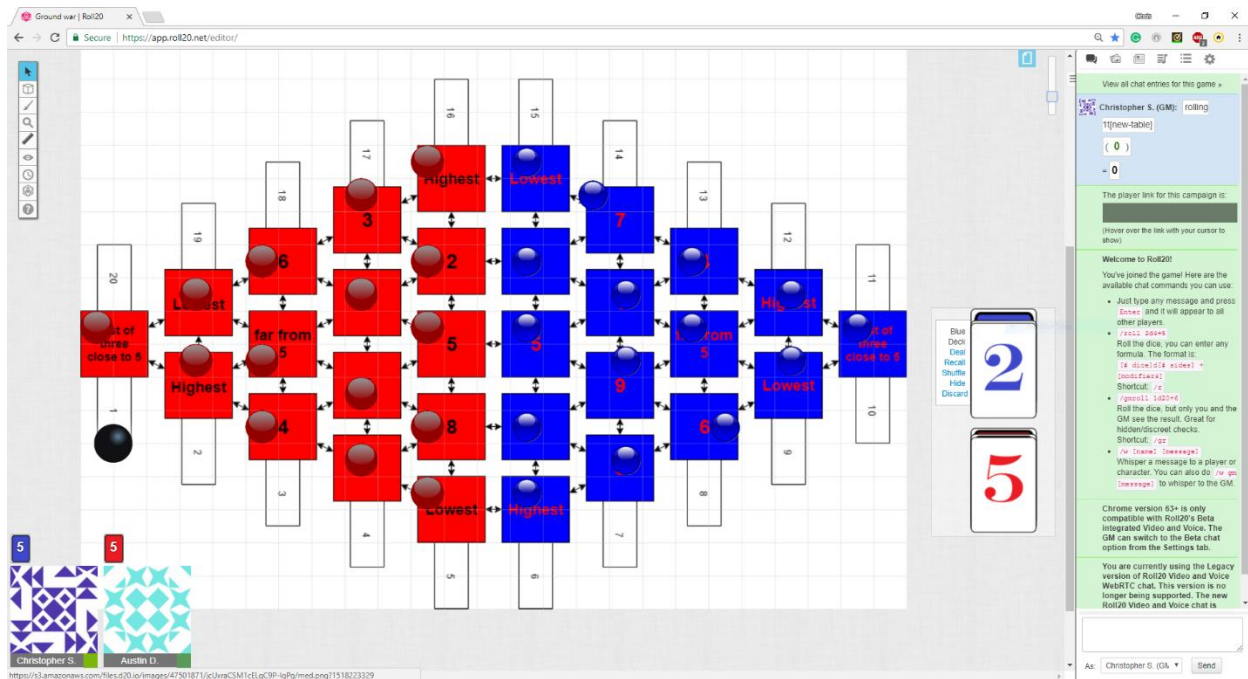
Austin Davis a 29-year-old male and a fan of Realtime strategy games. Participated in play test online at roll20.net.

### Test Stage 3 Results

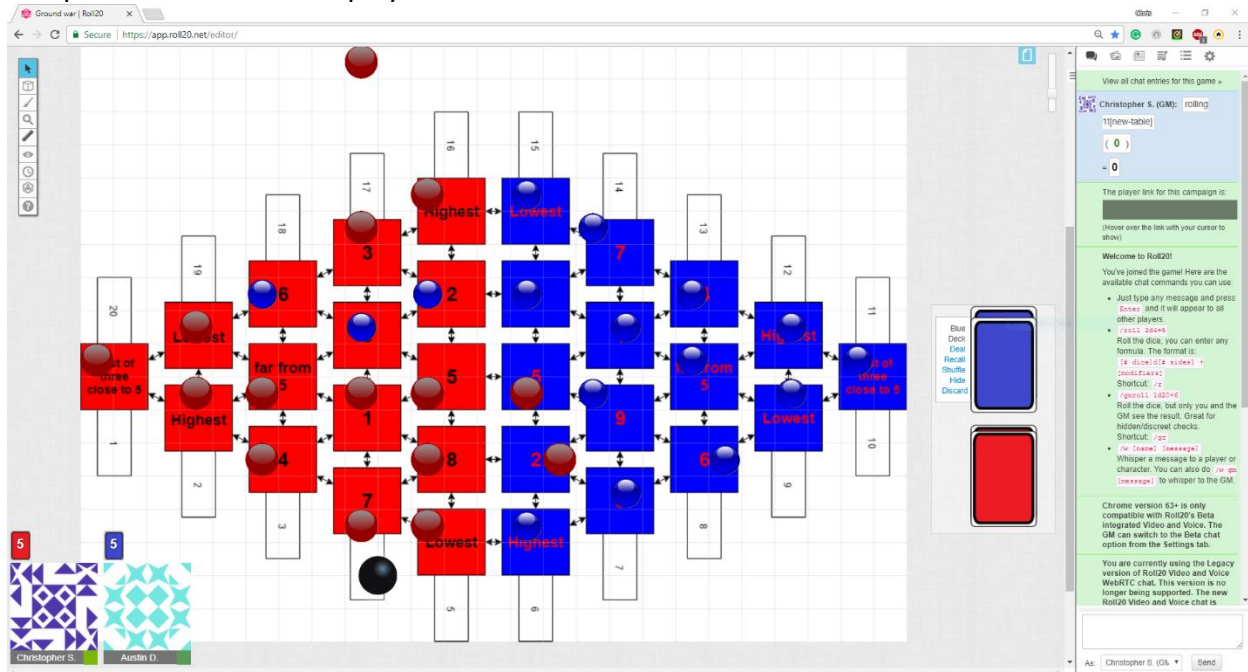
The goal of this round of testing is to determine if the new rule in attacking bases fixes the issues that it is intended to and does not sacrifice gameplay and pacing. Another goal is to see if the board redesign will help make attacking options clearer.



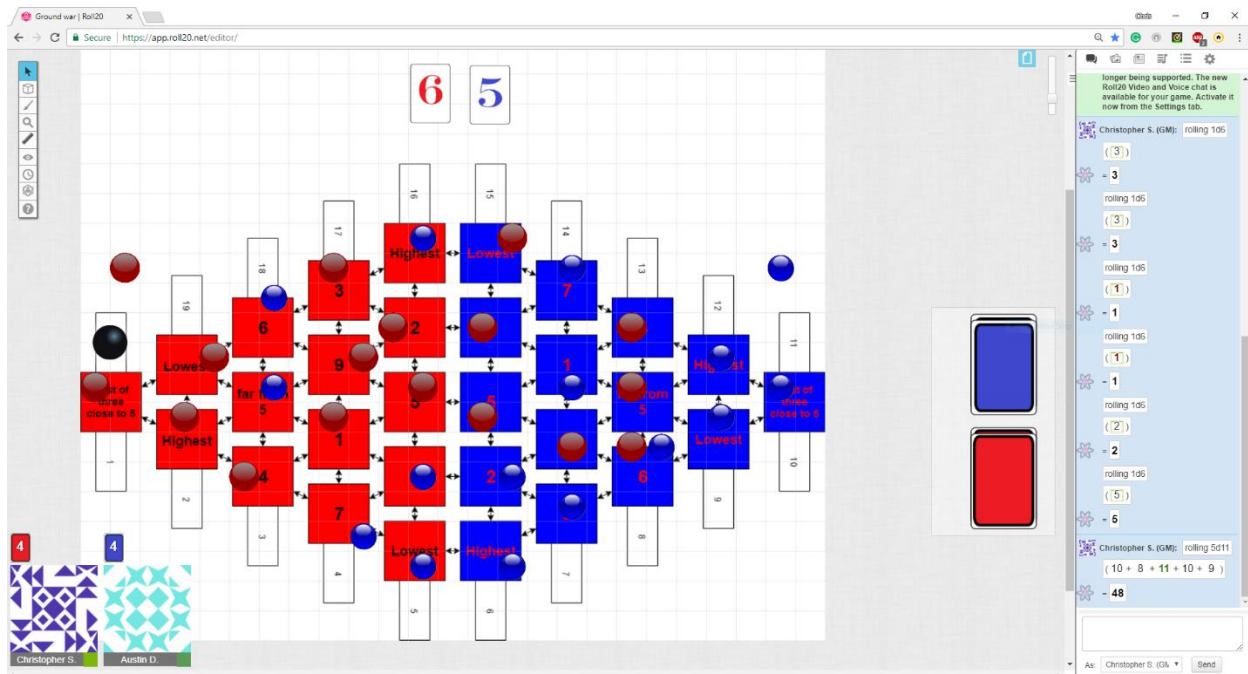
The test game positive results however the new mechanic caused more games to end do to round limit. However, I steel feel 20 round limit is the best for this type of game. The board was also helpful and shoed to be helpful to the testers ability to see paths for attack.



Start of game one doing the comparison for determining who is player on. Austin wins comparison and becomes player one.



Second half of round 4 of game 2 I am thinking of where I should attack.



Final turn of game 3 last turn I had cut Austin off from the rest of the board and now it is the last turn and he is trying to re-gain access to controlled territories. I won the comparison and won the game by a 2 territory lead.

## Test Stage 3 Reflection

- Austin commented that he did not like having to attack again. This will be tested in the next stage I will have Austin test in that one as well to see if the change will improve his enjoyment of the game.
- Austin commented on the board being clearer for attacking. This shows that the board is an improvement however I personally feel it is still to cluttered and my need to space it out or change the connectors to just lines.
- An issue that I noticed is that it is possible for a player to run out of valid moves and can not end there turn thanks to the new three card requirement for attacking the opponent's base. This must be addressed by adding some rule to force the passing of the turn.
- Austin gave positive feedback on the addition of the zero card to help with the far from 5 issue that had been in previous tests.

## Play Testers Stage 4

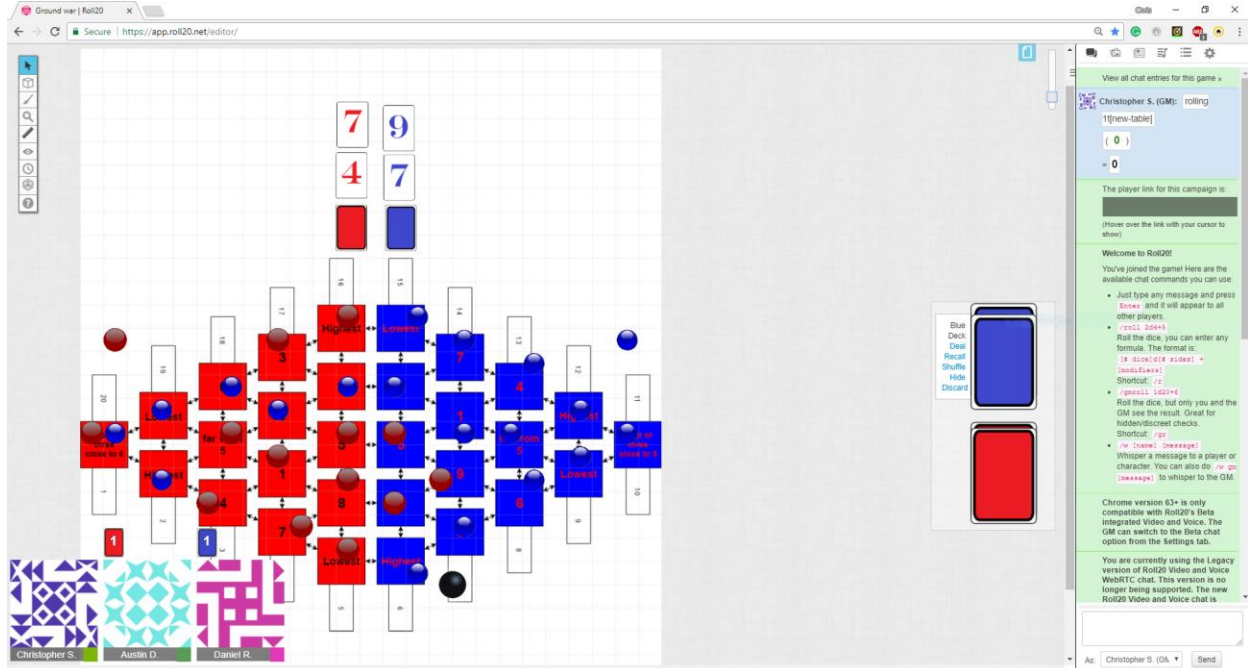
Two Testers:

Austin Davis a 29-year-old male and a fan of Realtime strategy games. Participated in play test online at roll20.net.

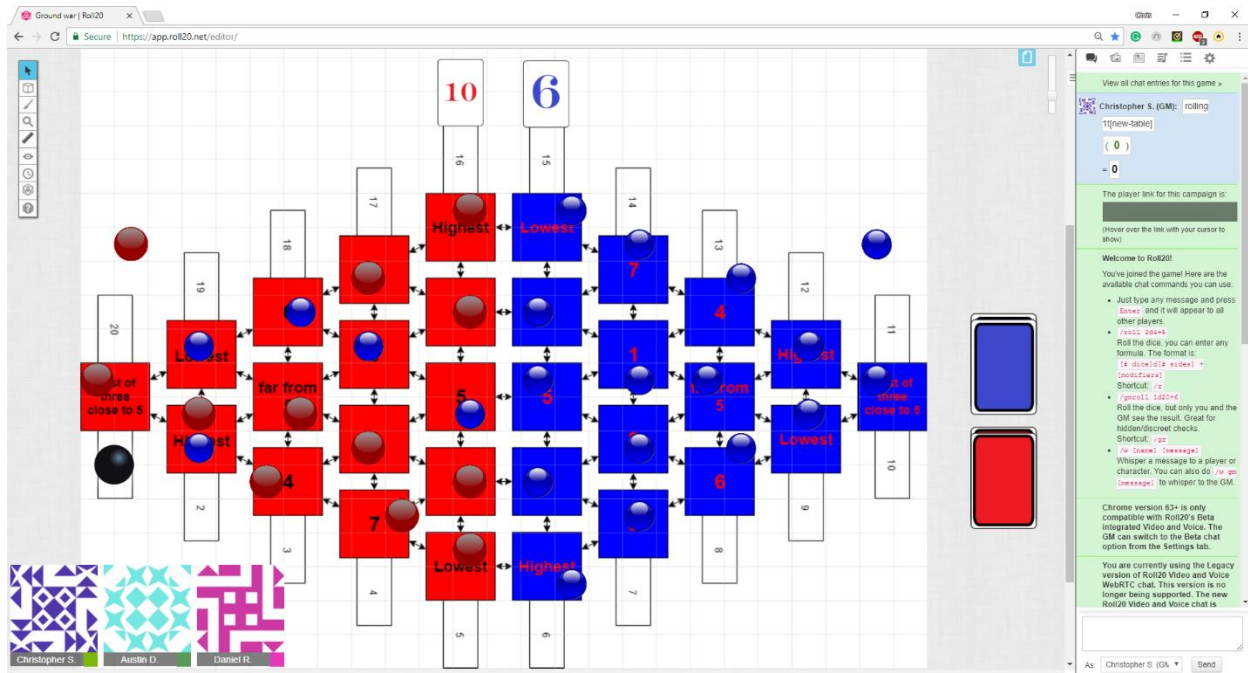
Daniel Ruiz a 22-year-old male and fan of the board game Risk. Participated in the play test online at roll20.net.

## Test Stage 4 Results

The goal of this test is to evaluate both new mechanics and determine if the new rules can function without my interference. The results of this test were promising. Both players appeared to enjoy themselves playing and had few issues with the game.



Daniel attacking Austin's base on the second half of round 7. Austin successfully defended his base from the attack.



This screenshot shows almost the scene I was afraid of happening before the three-card rule. If Daniel blue had drawn the ten instead of Austin and the three-card rule was not in play, Austin would have lost without taking a turn this game.

## Test Stage 4 Reflection

- Austin commented that you were having more fun because he was not forced to keep attacking till he lost. This feeling was shared by Daniel as well. This shows that the option to pass the turn is an improvement.
- Daniel was pleased to see that the zero card was added. However, he wasn't happy with the increased size of decks.
- I noted that the three-card limit for attacking the base has definitely made the game longer. However, I am confident the 20-round limit is correct so that the game does not drag on too long and 20 rounds is just right to not get bored of the game.
- I also noted that I should increase the detail in the three-card rule to specify how the comparison happens so that there is no confusion in which cards are compared.

## Final Reflection

- A. I learned that Designing a board game has a lot of paperwork and testing behind it. The paper trail of designing a game is longer than I originally anticipated. I originally thought the rule book you received in the box was essentially all the documentation associated with a game.
- B. I was originally under the misconception that while designing a board game there was little documentation of the process and removal of features and was not bothered being recorded as a failed mechanic.
- C. I learned that play testing a game is a huge part of game design and any game that released without any sort of play testing will without a doubt be flawed and possibly easily exploded. This is due to the designer not knowing how players will interact with their game.
- D. The connection that I can see between this class and my previous one is that the rules written for a board game function identically to the code in videogames except the physical rules are more transparent. This transparency makes the rule easier to understand but requires them to be more detailed.