



PROMOTIONAL PACKET



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February 1, 2022

To Whom It May Concern,

We respectfully submit this letter of intent to your casino on behalf of Sandcastle Gaming LLC requesting consideration for a Field Trial of Antigo!. Your support would provide the foundation for seeking final regulatory approval from the Nevada Gaming Commission and provide the opportunity for you to showcase a new and exciting game to your quality clientele.

We understand hosting a field trial does not come without challenges. We would like the opportunity to show you the value you would be adding to your players and to the casino's bottom line with the information enclosed in this packet as well as a live demonstration at your convenience.

Antigo! brings baccarat into the modern age by combining competitive and cooperative game play. It was a journey from conception to creation, but Matt Weiss's newest game is ready to take Las Vegas by storm! Antigo! is a simple, easy-to-learn game that is also fast-paced and exciting for players!

Through this packet and the live demonstration, we hope to prove Antigo! will be a fresh, appealing, and profitable addition to your table game lineup. Our partnership will help expand and lead the table game market by providing a table game focused on cooperative play, where more players are encouraged to participate while spending a considerable amount of time on the table.

Thank you for your consideration. We look forward to partnering with your casino. If you would like to schedule a live demo, have questions or require additional information regarding Antigo!, please feel free to contact Matt Weiss at Sandcastle Gaming LLC at (917) 232-4391 or sandcastlegamingllc@gmail.com. We look forward to hearing from you.

Sincerely,

Heather Ferris

Vegas Aces Services, LLC

Marketing Team for Sandcastle Gaming LLC

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Felt Design

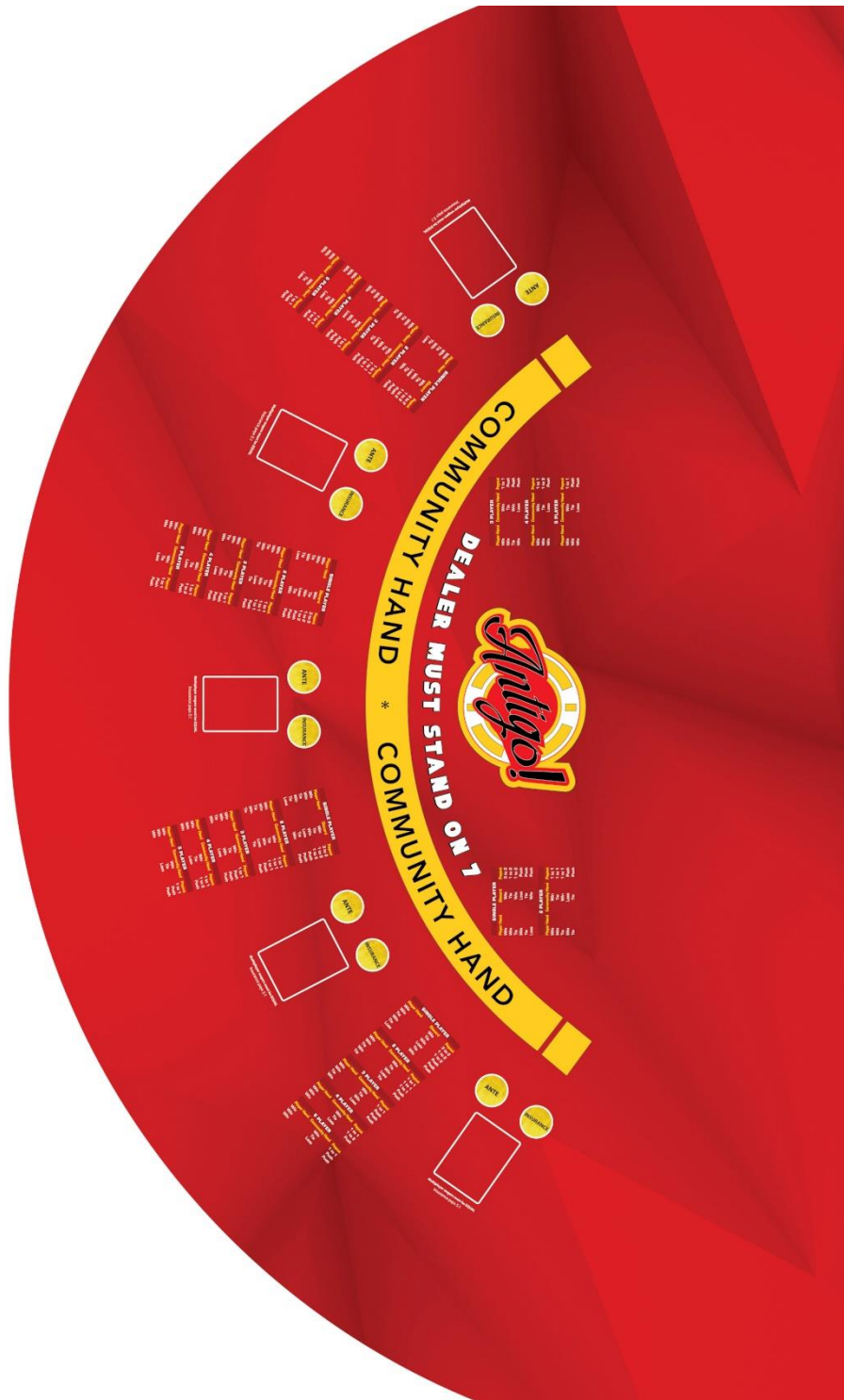


Photo Gallery



The Story Behind the Game



Matt Weiss excelled in math and science growing up, while during his free time he was captivated with both board games and video games alike. His affinity for problem solving and strategy eventually led him to law school and was the catalyst for inventing a compelling, cooperative casino game,

inspired by his history with games.

It was a journey from concept to creation, but after a year of tweaking, Matt's newest game, Antigo!, is ready for public consumption. The biggest challenge during this process was adjusting the rules in a way that gave the casino an optimal house edge.

Inspired by cooperative board games where players work together to reach a common goal, Antigo! capitalizes on this concept by requesting players to team up with a shared objective of beating the house.



Recognizing the social aspect of gaming, Matt sought to excite large crowds with Antigo! by utilizing co-op play Gen Z and Millennials are already accustomed to and mixing it with classical casinos games such as baccarat.

Rules of Play

Antigo! features both multiplayer and single player game play. It is played with a 52-card deck in an 8-deck shoe. The object of the game is to have higher value cards than the dealer in both the player's hand and the community hand. In the multiplayer version, after placing equal, mandatory wagers on the "ante" circle, players will be dealt 3 cards face up while the dealer will receive 2 cards face down. Each player will decide which card to contribute to the community hand and which two cards they'll keep. The community cards will be placed on the community ribbon for all to see. Once a card has been placed on the ribbon, it cannot be changed. The single player version is the same as the multiplayer version except that, rather than contributing a card to the community hand, the player will create their own 2-card hand and 1-card "community hand" to face off against the dealer. When comparing the player and community hands with the dealer's hand, the higher value hand wins. Nine is the highest value available while zero is the lowest. The cards are added up similar to Baccarat. Aces are valued as one, face cards are valued as ten, and all other cards are worth their pip value. The tens place value is removed from the total amount leaving only a single digit. For example, if the player has a 4 and 9 then $4 + 9 = 13$. Drop the tens place value and the total value of the player's hand is now 3. Same as if there are four players at the table and the community cards are $7 + 6 + 8 + 3 = 24$, drop the tens place value so the total value of the community hand is now 4. Once all players have made their decision, the dealer will flip over their two cards and draw a third card if their total card value is 6 or less. In the multiplayer version, the optimal strategy players should use is to collaborate with the goal of making a good community hand without damaging their own hands too much. Similarly, in the single player version, the players should maximize the value of their 2-card hand without leaving their 1-card hand too low. When determining the winner in a multiplayer game, the value of the player's hand and the community hand are separately compared to the value of the dealer's hand. Winning hands and payoffs depend on the number of players, as follows:

	Player Hand	Community Hand	Payout
2 Players	Win	Win	1 to 1
	Win	Tie	1 to 1
	Tie	Win	1 to 1
	Win	Loss	Push
	Tie	Tie	Push
3 Players	Win	Win	1 to 1
	Win	Tie	Push
	Tie	Win	Push
	Win	Loss	Push
4 Players	Win	Win	1 to 1
	Win	Tie	1 to 2
	Win	Loss	Push
5 Players	Win	Win	1 to 1
	Win	Tie	Push
	Win	Loss	Push

When determining the winner in a single player game, the value of the player's 2-card hand and their 1-card "community hand" are separately compared to the value of the dealer's hand. Winning hands and payoffs are as shown here:

	Player Hand	Community Hand	Payout
Single Player	Win	Win	3 to 2
	Win	Tie	1 to 2
	Tie	Win	1 to 2
	Win	Loss	Push
	Tie	Tie	Push
	Loss	Win	Push

The house edge for multiplayer ranges from 0.52% to 2.62% depending on the number of people playing, while the house edge for single player is 1.80%.

"Insurance" is a side bet that players can make if they think the dealer will draw to 9. If the player wins, their wager will be paid 5 to 1. The insurance side bet has a house edge of 9.99%.

Benefits

One of the highlighted benefits of Antigo! is the cooperative game play. This feature will attract more Millennials and their friends as they play for hours! Another benefit to Antigo! is it has a single-player version without the co-op mode allowing this versatile and fast-paced game to be an enjoyable experience during all occasions!

Additional benefits include:

- Math Analysis from GLI (Gaming Labs International)
- House Edge Variations
 - Single Player Variation
 - 1.80% House Edge
 - Multi Player Variation
 - Two Players Will Achieve a 0.52% House Edge
 - Three Players Will Achieve a 2.62% House Edge
 - Four Players Will Achieve a 2.33% House Edge
 - Five Players Will Achieve a 0.71% House Edge
 - Dealer 9 Side Bet
 - 9.99% House Edge

Dealer's Policies & Procedures

Antigo! is played with a 52-card deck in an 8-deck shoe. The object of the game is to have higher value cards than the dealer in both the player's hand and the community hand. The players will place equal, yet mandatory wagers on the "ante" circle. Double check and be sure that all the players are wagering the same amount on the ante before taking the first card out. This only applies for the multiplayer version. In the single player version, players can bet any amount they choose. All bets must be made before the cards are dealt. Players will be dealt 3 cards face up while the dealer will receive 2 cards face down. When dealing out the cards, the dealer will start from the left-hand side of the table and go right. Each player will decide which card to contribute to the community hand and which two cards they'll keep. The community cards will be placed on the community ribbon for all to see. Once a card has been placed on the ribbon, it cannot be changed. In the multiplayer version, players are encouraged to share their hands and communicate what they have, unlike on pai-gow poker or handheld blackjack, the dealer will allow this behavior. The single player version is the same as the multiplayer version except that, rather than contributing a card to the community hand, each player will create their own 2-card hand and 1-card "community hand" to face off against the dealer. When comparing the player and community hands with the dealer's hand, the higher value hand wins. Nine is the highest value available while zero is the lowest. The cards are added up similar to Baccarat. Aces are valued as one, face cards are valued as ten, and all other cards are worth the value of their pips. The tens place value is removed from the total amount leaving only a single digit. For example, if the player has an 8 and 7 then $8 + 7 = 15$. Drop the tens place value and the total value of the player's hand is now 5. Same as if there are four players at the table and the community cards are $9 + 5 + 7 + 4 = 25$, drop the tens place value so the total value of the community hand is now 5. Once all players have made their decision, the dealer will flip over their two cards and draw a third card if their total value is 6 or less. When determining the winner in a multiplayer game, the value of the player's hand and the community hand are separately compared to the value of the dealer's hand. Winning hands and payoffs depend on the number of players, which the dealer can find referenced on the table:

	Player Hand	Community Hand	Payout
2 Players	Win	Win	1 to 1
	Win	Tie	1 to 1
	Tie	Win	1 to 1
	Win	Loss	Push
	Tie	Tie	Push
3 Players	Win	Win	1 to 1
	Win	Tie	Push
	Tie	Win	Push
	Win	Loss	Push
4 Players	Win	Win	1 to 1
	Win	Tie	1 to 2
	Win	Loss	Push
5 Players	Win	Win	1 to 1
	Win	Tie	Push
	Win	Loss	Push

When determining the winner in a single player game, the value of the player's 2-card hand and their 1-card "community hand" are separately compared to the value of the dealer's hand. Winning hands and payoffs are shown on the pay tables located on the table:

	Player Hand	Community Hand	Payout
Single Player	Win	Win	3 to 2
	Win	Tie	1 to 2
	Tie	Win	1 to 2
	Win	Loss	Push
	Tie	Tie	Push
	Loss	Win	Push

During the take-and-pay procedure, the dealer will start from the right-hand side of the table and go left. Ante bets will be paid or taken first and then the Insurance side bet will be addressed. "Insurance" is a side bet that players can make if they think the dealer will draw to 9. If the player wins, their wager will be paid 5 to 1. If not, the bet is taken.



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16 December 2021

Mr. Matthew Weiss, Owner
Sandcastle Gaming LLC
82 Wadsworth Ave, Apt 31
New York, New York 10033

Re: Mathematical Analysis of *Antigo!* (Proposal # LO-20210823-7171 dated August 23, 2021)

File Nr: LO-00-SG6-21-01, Update

Dear Mr. Weiss,

As per Sandcastle Gaming LLC's request, please find **Gaming Laboratories International, LLC's (GLI)** math analysis for the table game, *Antigo!*.

This report only verifies the mathematical aspects of this game and DOES NOT offer an opinion as to whether or not this game is currently authorized for use in any jurisdiction.

Game Description

DEALING AND GAMEPLAY

Antigo! is a table game for up to 5 players using 8 standard 52-card decks. The player begins by placing a fixed-value Antigo wager. All Antigo wagers at the table must be of equal value. Optionally, the player may also place a Dealer 9 wager.

Each player is then dealt three cards face-up. The dealer receives two cards face-down. The player then chooses one of their cards to discard. All discarded cards will be collected together to form a community hand. The dealer then reveals their cards. If the total dealer score is 6 or less, using Baccarat-style scoring, the dealer will receive a third card. All wagers are then resolved.



INDIVIDUAL CONFIGURATION

Antigo! may also be offered in an alternative configuration where the player's discarded card goes not to a community hand, but to an individual discard hand. In the report, this will be referred to as the individual configuration.

ANTIGO WAGER

To resolve the Antigo wager, the player hand is compared against the dealer hand using Baccarat hand scoring. The community hand (alternatively, the individual discard hand) is also compared to the dealer hand. If the player hand and/or community hand beat or tie the dealer, the wager may win, paying according to scenario and according to number of players at the table, as given in [Table 1](#). Otherwise, the wager loses.

Table 1. Pays — Antigo Wager

Scenario	Number of Players				
	1	2	3	4	5
Player Win + Community Win	1.5 to 1	1 to 1	1 to 1	1 to 1	1 to 1
Player Win + Community Tie	0.5 to 1	1 to 1	Push	0.5 to 1	Push
Player Win + Community Loss	Push	Push	Push	Push	Push
Player Tie + Community Win	0.5 to 1	1 to 1	Push	Loss	Loss
Player Tie + Community Tie	Push	Push	Loss	Loss	Loss
Player Tie + Community Loss	Loss	Loss	Loss	Loss	Loss
Player Loss + Community Win	Push	Loss	Loss	Loss	Loss
Player Loss + Community Tie	Loss	Loss	Loss	Loss	Loss
Player Loss + Community Loss	Loss	Loss	Loss	Loss	Loss

DEALER 9 WAGER

If the dealer has a total of 9, either with the initial two cards or after receiving a third card, the Dealer 9 wager wins and pays 5 to 1.



Mathematical Analysis

The analysis for the main wager was conducted by iterative program for 1 player up to 4 players and by simulation for 5 players.

For up to 4 players, the program iterated through all possible combinations of player hands, calculated the distribution of dealer total based on the player cards, and determined the best discard strategy for all the players working together, to maximize the overall player win. The wins and pushes were tallied to produce overall returns for the game.

For 5 players, the possible player combinations are too numerous to exhaustively iterate. Therefore, a simulation sampled random player combinations, but otherwise followed the same procedure, calculating the dealer distribution and determining the best overall strategy.

The results of these programs, giving the Return to Player (RTP) and House Edge (HE) are summarized in [Table 2](#). Note that the returns for the Individual Configuration — regardless of number of players — are identical to the returns for 1 player in the normal configuration, as given below.

Table 2. Return Summary — Antigo Wager

	Number of Players				
	1	2	3	4	5
RTP	98.20%	99.48%	97.38%	97.67%	99.29%
HE	1.80%	0.52%	2.62%	2.33%	0.71%

For the Dealer 9 wager, the probability of each dealer hand was calculated exactly, and the total of 9 events, either 2- or 3-card, were tallied and combined with the pay information to produce returns for the wager. These can be found in [Table 3](#).

Table 3. Return Summary — Dealer 9 Wager

RTP	90.01%
HE	9.99%

All analysis was performed assuming a freshly shuffled shoe.



Summary

Overall, the highest RTP that can be obtained is 99.48%, when there are 2 players at the table, and they work together to maximize overall player winnings. The lowest wager RTP is 90.01%, from the Dealer 9 wager.

Updates to the previously issued report dated November 2, 2021 were made which include adding information regarding 'Individual Configuration'.

Please visit [Gaminglabs.com](https://www.gaminglabs.com) to view the applicable Terms and Conditions and GLI Product Certification Scheme.

Should you have any questions, please feel free to contact our office.

Sincerely,

GAMING LABORATORIES INTERNATIONAL, LLC



Christine M. Gallo

Senior Vice President, Quality and Technical Compliance

nbm/lb



Contact Us



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