## STReight ${ }^{\text {TM }}$

## Gambling game

Dr. Catalin Florian Radut<br>Dr. Andreea Magdalena Parmena Radut<br>108 Toamnei St.,<br>Bucharest - 2<br>020715 Romania<br>Tel: (+40) 722302258<br>Telefax: (+40) 212110198<br>Telefax: $(+40) 314011654$<br>URL: http://www.radut.net, http://www.puzzle.ro, http://www.streight.co.uk e-mail: florian@radut.net

## Introduction

STReight ${ }^{\text {TM }}$ is based on a new games series whose concept was born in spring of 2005 InfiniBALL; it is practicable in casinos or in specialized gaming halls, on the Internet, as a lottery system, as a gambling game itself or as a TV gambling game.

A number of drawing items, like balls, cards, special designed cards or dice, coloured or labelled with numbers or symbols (geometric shapes) which, by randomly drawing out, form successive sequences that determines the value of prize, and a real or virtual game board where the players may place the bets, form the gambling game. The main rule is to use a number of drawing items (balls, cards, dice), coloured or labelled with numbers or symbols where the number of items of the same kind must be equal or grater than the number of colours or symbols used, and the number of the drawn items to be equal with the number of symbols utilised.

There are possible different kinds of STReight ${ }^{\top M}$ as follow: with 3 symbols (27 combinations), 4 symbols ( 256 combinations), 5 symbols ( 3,125 combinations), 6 symbols ( 46,656 combinations), 7 symbols ( 823,543 combinations) and 8 symbols (16,777,216 combinations). The game may use nine or more symbols (numbers, colours) but the number of possible combinations rises unusually high (for example, the 9 numbers game has no less than $387,420,489$ combinations).

The main principle of the game is to shuffle the drawing items and randomly draw a number of items in a precise order. The winning formations are successions of items of the same kind as, two adjacent items (pair), three in line, four in line, five in line, six in line, seven in line, eight in line, combinations of these formations, arrangements with all the symbols, as well as, losable formations on which bets are possible as an option.

STReight ${ }^{\text {TM }}$ game has the following advantages:

- it use a few number of random items - only 8 symbols may generate 16,777,216 combinations;
- the game has simple rules and it is easy to be played;
- the number of possible combinations rise exponential with the complexity of the game (the number of symbols used);
- the are possible different prize schemas;
- high number of winnings (in fact, all the players win constantly) but with an assured and predictable house advantage;
- high credibility of the game because of the limited possibilities of the organizer's intervention in the game;
- can be played in many variations as Casino game, including slots and progressive games, SMS/WAP, online games, lotto, etc;
- it is a very simple game and inexpensive to be produced in all its variants.

For example, there may be a game using four colours and the drawing method shall have at least four items (cards) for each colour; so, there will be 16 cards in total. By randomly drawing out four cards, the sequence may form formations of two adjacent cards having the same colour (pair), two pairs, three in line, four of a kind, or a formation having all the four colours (named "all"). Each of these formations has a welldefined value in the game. Instead of colours, the items may be labelled with different geometric shapes, symbols, letters; electronic drawing may be used too.

The players will win only if their bets on the game board match the drawn winning formations, accordingly with the payouts established through house's rules.

The name of the game, STReight, is a variation of the word "straight" meaning that the winning formations are items in succession but it also means "straight eight" because the maximum playable number of symbols is eight, having $16,777,216$ combinations in total.

The ideal Casino game use only four symbols but for a better scrambling of cards, the deck has eight cards of each symbol.

## Scrambling / drawing modalities

In order to obtain formations of colours or symbols, a few different approaches may be possible. Therefore, to play the game, items like balls, cards, special designed cards or dice, coloured or labelled with numbers or symbols, or even electronic or mechanical drawings may be used.
a) STReight ${ }^{\text {TM }}$ deck of cards it is the most used method of drawing for Casino game. The cards have a specific design for the game with a playing side, usually coloured or with a certain symbol on it, and backside.


STReight ${ }^{\text {TM }}$ deck of cards labelled with "suits", for four symbols game


Two STReight ${ }^{\text {TM }}$ decks of cards labelled with "suits" and colours, for four symbols game


Two STReight ${ }^{T M}$ decks of cards labelled with geometric symbols and colours, for the $4 \times 4$ game


STReightim deck of cards labelled with "suits", for eight symbols game
b) Regular playing cards could be used for drawing without any changes. For example, a 4X4 game could be played with Jacks, Queens, Kings and Aces only. After the drawing, the values and the suits of the cards could compose formations as pairs, three in line, four in line, and all.
c) Balls (spheres) coloured in 3, 4, 5, 6, 7 or 8 colours or labelled with symbols. The number of balls having the same colour it is equal with the number of colours used. In consequence, the balls set shall have accordingly $9,16,25,36,49$ or, respectively, 64 spheres. For more than 4 colours, it could be used incomplete /stripe colours. Method of withdrawal can be mechanic or electronic. In addition, the spheres can be printed with numbers, symbols and geometrical shapes.


Coloured STReight ${ }^{\text {TM }}$ balls, for 8 symbols game


Labelled STReight ${ }^{\text {TM }}$ balls, for 8 symbols game
d) STReight ${ }^{\text {TM }}$ Dices with a game specific design, each dice being individualised, for example through colour, depending by the model used. Because there is a need of an ordered arrangement, after throwing, the dices will be ordered on a certain surface of the game board. The dices are specific for 6X6 game. The 4X4 game could be also played with dices having four sides, or with modified dices, having four active sides and two opposite sides with a hemispheric shape. In consequence, the thrown dices will show only the active sides.


Coloured STReight ${ }^{\top \mathrm{TM}}$ Dices, having four active sides and two hemispheric sides, for six symbols game
e) The slots variant of STReight ${ }^{T M}$ may use Mechanical withdrawal. The rotating cylinders of the Slots machines have numbers, symbols, geometrical shapes or full /incomplete colours printed on.


Eight cylinders STReight ${ }^{\text {TM }}$ Slots (eight "suits" game version)


Four cylinders STReight ${ }^{\text {TM }}$ Slots (eight colours game version)
f) Electronic withdrawal in which randomly drawing of the numbers, symbols, geometrical shapes or full /incomplete colours, it is made by a specialised soft.

## Game board

There are possible several models of game boards in accordance with the size of the game, respectively with the number of symbols utilised (numbers, geometrical shapes or full /half colours).


STReight ${ }^{\mathrm{TM}}$ game board, for three symbols game (27 combinations)

|  |  |  |  |
| :--- | :--- | :--- | :--- |


$4 \times 4$ STReight ${ }^{\text {TM }}$ game board (playable with regular cards ( $256 \times 2$ combinations)


STReight ${ }^{\text {TM }}$ game boards, for four symbols game (256 combinations)

| four |  |  |  |  | four |
| :--- | :--- | :--- | :--- | :--- | :--- |
| three |  |  |  |  | three |
| two |  |  |  |  | two |
| s/p |  |  |  |  |  |

STReight ${ }^{\text {TM }}$ game board, for the $4 \times 4$ game (256 combinations)


STReight ${ }^{\text {TM }}$ game boards, for four symbols game (256 combinations)


Five symbols STReight ${ }^{\top \mathrm{M}}$ game board (3,125 combinations)


Seven symbols STReight ${ }^{\text {TM }}$ game board (823,543 combinations)


STReight ${ }^{\text {TM }}$ game boards, for eight symbols game (16,777,216 combinations)

## STReight ${ }^{\text {TM }}$ - Casino Game

## The Basics

Players, usually up to eight, play against the house represented by the croupier also called the dealer, who deal the cards and handles the wagers and payouts. There are two variations of the game. In the simple variant, the game use special cards, which have four colours or symbols. In the classic cards variant, the game has a double board and the players are able to place the bets on the cards' suits (colours or symbols) and the cards' values, as well.

Each player buys-in different coloured chips so their bets are not mixed up. At the end of play, the players who win will exchange back the coloured chips with "cash chips". These are special chips with the value amount imprinted on them. There are several denominations in various colours. The players then take these chips to the "cash desk" to exchange with cash money.

To play STReight ${ }^{\text {TM }}$, after the dealer says "place the bets", players bet one or more chips on the bets areas 1, 2, 3, and 4. Following the dealer's command "no more bets", no player can bet or modify the bet. The dealer shuffles the deck and draws randomly four cards, which form, sequentially, formations that give the value of the payouts. The winning successive formations are one pair, two pairs, three in a row, four of a kind, arrangements with all the 4 symbols, as well as losable formations.

The players will win only if their bet match the drawn formation, accordingly with the payouts established through house's rules.

## The payouts

The most used payout method is the "Only One" distribution and the payouts may be up to the casino will.

A bet on one symbol in any valid formation, except the formations with all the symbols, called "colour bet", pays 4 to 1 (the player collect 5 ) (A).
A bet on pairs, no matter the symbol, called "pairs any colour", pays 1 to 1 (B).
A bet on 3 in line, no matter the symbol, called "three any colour", pays 7 to 1 (C).
A bet on 4 of a kind, no matter the symbol, called "four any colour", pays 50 to 1 (D).
A bet on pairs, one symbol, called "pairs colour" or "two colour", pays 7 to 1 (E).
A bet on 3 in line, one symbol, called "three colour", pays 30 to 1 (F).
A bet on 4 of a kind, one symbol, called "four colour",
 pays 200 to 1 (G).
A bet on all symbols formations, called "ALL", pays 7 to
1 (H).
A bet on no winning formations, called "NONE", pays 1 to $1(\mathrm{I})$ - this is optional.

Only pure formations generate payouts; for example, a four of a kind formation cannot be interpreted as double pair.

## Object of the game

To win at STReight ${ }^{\text {TM }}$ the player needs to predict what formation(s) the dealer will serve, having the chance to bet on many formations. This is by no means easy. In fact, luck plays an important part in this game.

Some players go with the winning formations calling them 'hot' formations and therefore likely to come up more times. Others see which formations did not come up for some time and bet on them believing that their turn is now due. Some players bet on many formations to increase their chances of winning at every deal, but this way the payout decrease considerably. Other methodical players use specific STReight ${ }^{\text {TM }}$ systems or methods, money management systems, or both.

## The house advantage

Depending on the payout method used, the house advantage decided by the casino varies. Because if more than one player simultaneously participate in the game there is almost certain a winner, it is recommended a minimum $15.63 \%$ house advantage.

## STReight ${ }^{\text {TM }} \mathbf{4 \times 4}$, simple alternative

A game board (table), coloured chips sets used by players for placing the bets, and a 16 cards set having printed 4 symbols ( 4 cards for each symbol), forms the gambling game.


The game board has the following betting areas:

- area for a certain symbol in any valid formation, excluding all symbols formations, as a row 1, divided in 4 sectors, each one labelled with one of the symbols;
- area for certain formation of any symbol, as a column 2, divided in 3 sectors numbered with 2 for pairs, 3 for three in a row and 4 for four of a kind;
- area for formations made by certain symbols 3, which is divided in 12 sectors aligned in 3 rows and 4 columns;
- area for all symbols formations 4, labelled "ALL".

For a better amalgamation, card set could be higher (ideal 16, which means 8 cards with the same symbol) being compulsory that the number of the cards of a kind to be higher than the total number of used symbols, and the number of the extracted cards at once to be equal with number of symbols that is utilized. Coloured balls, special cards, classic cards, dice, etc. could replace the cards.

## Example

Dealer draws a combination having two pairs, spades with clubs.


A player has bet 3 chips a follows: 2 chips on symbol-any formation $\mathbf{1}$, one on spades and one on clubs, and one chip on a certain formation of any symbol 3, that means pairs. Player gets back the winning chips, in this case all being fortunate.

Let consider the case in that all payouts are paid accordingly with the unique distribution, most frequently used. For the chip placed on pairs-any symbol (two any colour), the player receives 1 chip with the same value, and for the two chips placed on symbol-any formation (colour bet), one on spades and one on clubs, receives 4 chips having the same value.

Second winning alternative, in case that payouts are paid accordingly with geometrical distribution, for the chip placed on pairs-any symbol, the player receives 8 chips with the same value, and for each chip placed on symbol-any formation, receives 4 chips with
same value.

Third winning possibility, in case that the payouts are paid in accordance with arithmetical distribution, for the chip placed on pairs-any symbol, the player receives 1 chip with the same value (Bet recovered), and for each of the two chips placed on symbol-any formation, gets 4 chips each, having the same value.

## Example

A player that has bet two chips $\mathbf{b}$ on the area for formations made by certain symbols 3 one on pairs of hearts and one on pair of clubs - shall receive just one chip, the winning one, found on the sector where clubs column crosses pair's column.

In case that all payouts are paid accordingly with the unique distribution, for the chip placed on pairs of clubs, the player receives 7 chips with the same value.

Second winning alternative, in case those payouts are paid accordingly with geometrical distribution, for the chip placed on pairs of clubs the player receives 17 chips with the same value.

Third winning possibility, in case the payouts are paid in accordance with arithmetical distribution, for the chip placed on pairs of clubs the player gets $2 \times 4$ chips having the same value.

## STReight ${ }^{\text {TM }} \mathbf{4 \times 4}$, standard cards alternative

A game board (table), coloured chips sets used by players for placing the bets, and a classic cards set having 16 cards 4 symbols - 4 cards for each symbol, correspondingly jacks, queens, kings and aces, forms the gambling game.

The game board is equal divided in two, having bets areas on cards' suits (left side) and on cards' values (right side).


The bet zones for cards' suits are:

- area for a certain suit in any valid formation, excluding formations that contain all suits, as a row 1, divided in 4 sectors, each one having marked one of the cards' suits;
- area for a certain formation any suit, as a column 2, divided in three sectors numbered with 2 for pairs, 3 for three in a row and 4 for four of a kind;
- area for formations composed by certain suits 3, which is divided in 12 sectors arranged in 3 rows and 4 columns;
- area for formations that contains all suits 4, labelled "ALL SUITS" or "ALL COLOURS".

The bet zones for cards' values are:

- area for a certain value in any formation, as a row $\mathbf{1}^{\prime}$, divided in 4 sectors, each one having marked one of the cards' value;
- area for a certain formation any value, as a column 2', divided in 3 sectors numbered with 2 for pairs, 3 for three in a row and 4 for four of a kind;
- area for formations composed by certain values $\mathbf{3}^{\prime}$, which is divided in 12 sectors arranged in 3 rows and 4 columns;
- area for formations that contain all values 4', labelled "ALL VALUES".

For a better combination, the card set could be double but it is compulsory that the number of the same cards to be higher then the total number of the values of the cards, and the number of the served cards to be equal with the number of values utilised. Using standard cards, each drawing determines generation of mixed formations, the player having the possibility of winning both with suits and with values.

## Example

Croupier draws a mixed combination having the following sequence: Q-spades, Q-hearts, A-hearts, Khearts, meaning a pair of Queens and three hearts in a row.


One player has bet 3 chips a, as follows: one chip on a certain suit in any valid formation 1, for example Hearts, and one chip on formations composed by certain values 3', for example on pairs of Queens. The chip placed on pairs of Hearts loses. The player gets back the winning chips, two of them, the one placed on three Hearts and the one placed on pairs of Queens.

In case in that all payouts are paid accordingly with the unique distribution, most frequently used, for the chip placed on Hearts (colour bet), the player receives 4 chips with the same value, and for the chip placed on pairs of Queens (two colours) receives 7 chips with the same value.

Second winning alternative, in case those payouts are paid accordingly with geometrical distribution, for the chip placed on Hearts, the player gets 4 chips with the same value, and for the chip placed on pairs of Queens receives 3 chips with the same value.

Third winning possibility, in case the payouts are paid in accordance with arithmetical distribution, for the chip placed on Hearts, the player gets 4 chips with the same value, and for the chip placed on pairs of Queens receives 4 chips having the same value.

| STReight ${ }^{\text {™ }}$ | (automatically generated) |  |  |  | "Only One" distribution |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4x4 | Combinations |  | Max. Theoretical Paying Factor |  | Max. Recommended Payouts |  |
| Formations | $\begin{gathered} \text { Any } \\ \text { colour } \end{gathered}$ | Colour | $\begin{gathered} \text { Any } \\ \text { colour } \end{gathered}$ | Colour | Any colour | Colour |
| 2 in line* | 108 | 27 | 2.37 | 9.48 | 1:1 | 7:1 |
| 3 in line | 24 | 6 | 10.67 | 42.67 | 7:1 | 30:1 |
| ALL | 24 |  | 10.67 |  | 7:1 |  |
| 4 in line | 4 | 1 | 64.00 | 256.00 | 50:1 | 200:1 |
| Colour Bet | 34 |  | 7.53 |  | 4:1 |  |
| None | 84 |  | 3.05 |  | 1:1 |  |


| WIN | 160 |  |
| :---: | :---: | :---: |
| LOSE | 84 | $32.81 \%$ |
| Total | $\mathbf{2 5 6}$ |  |
|  |  |  |

* repetitive formations pay only once

Table with payouts suggestions and house advantage - unique (only one) distribution

| STReight ${ }^{\text {m }}$ | (automatically generated) |  |  |  | Geometric Distribution |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4x4 | Combinations |  | Max. Theoretical PayingFactor |  | Max. Recommended Payouts |  |
| Formations | $\begin{gathered} \text { Any } \\ \text { colour } \end{gathered}$ | Colour | Any colour | Colour | Any colour | Colour |
| 2 in line | 108 | 27 | 1.19 | 4.74 | 0 | 3 |
| Double 2 in line | 12 | 6 | 10.67 | 21.33 | 8 | 17 |
| 3 in line | 24 | 6 | 10.67 | 42.67 | 8 | 35 |
| ALL | 24 |  | 10.67 |  | 8 |  |
| 4 in line | 4 | 1 | 64.00 | 256.00 | 53 | 215 |
| Colour Bet | 40 |  | 6.40 |  | 4 |  |
| None | 84 |  | 3.05 |  | 2 |  |


| WIN | 172 |  |
| :---: | :---: | :---: |
| LOSE | 84 | $32.81 \%$ |
| Total | $\mathbf{2 5 6}$ |  |
|  |  |  |

Table with payouts suggestions and house advantage - geometric distribution

| STReight ${ }^{\text {™ }}$ | (automatically generated) |  |  |  | Arithmetic Distribution |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4x4 | Combinations |  | Max. Theoretical Paying Factor |  | Max. Recommended Payouts |  |
| Formations | Any colour | Colour | Any colour | Colour | Any colour | Colour |
| 2 in line* | 132 | 39 | 1.94 | 6.56 | 0 | 4 |
| 3 in line | 24 | 6 | 10.67 | 42.67 | 8 | 35 |
| ALL | 24 |  | 10.67 |  | 8 |  |
| 4 in line | 4 | 1 | 64.00 | 256.00 | 53 | 215 |
| Colour Bet | 46 |  | 5.57 |  | 4 |  |
| None | 84 |  | 3.05 |  | 1 |  |


| WIN | 184 |  | double formations pay double |
| :---: | :---: | :---: | :---: |
| LOSE | 84 | 32.81\% |  |
| Total | 256 |  |  |

Table with payouts suggestions and house advantage - arithmetic distribution

* the tables are examples only; other payout values may be used instead


## STReight ${ }^{\text {TM }}$ - Slots

## Basic Principle

A number of rotating/virtual cylinders on which are printed colours or other symbols, and a control panel with buttons for betting, made the slots application of STReight ${ }^{\text {TM }}$ gambling game.

After placing the chips or coins into the machine, the player defines bets by pressing one or more buttons. The draw begins by pushing the "Start" button.

Adding more discs and more symbols diversify the Slots game in its mechanical/ software version, being compulsory that the number of symbols (colours) to be equal or higher then the number of rotating cylinders used.

## The payouts

Slots, 3 symbols (colours)
A bet on one symbol in any winning formation, except the formations with all the symbols, called "colour bet", pays 3 to 1 (the player collects 3).
A bet on pairs, no matter the symbol, called "pairs any colour", pays 1 to 1.
A bet on 3 in line, no matter the symbol, called "three any colour", pays 7 to 1.
A bet on pairs, one symbol, called "pairs colour" or "two colours", pays 5 to 1.
A bet on 3 in line, one symbol, called "three colours", pays 23 to 1.
A bet on all symbols formations, called "ALL", pays 3 to 1 .
A bet on no winning formations, called "NONE", pays 3 to 1 (optional).

## Slots 5 symbols (colours)

A bet on one symbol in any winning formation, except the formations with all the symbols, called "colour bet", pays 6 la 1 (the player collects 6).
A bet on pairs, no matter the symbol, called "pairs any colour", pays 1 to 1 .
A bet on 3 in line, no matter the symbol, called "three any colour", pays 8 to 1 .
A bet on 4 of a kind, no matter the symbol, called "four any colour", pays 60 to 1.
A bet on 5 of a kind, no matter the symbol, called "five any colour", pays 400 to 1.
A bet on pairs, one symbol, called "pairs colour" or "two colours", pays 9 to 1.
A bet on 3 in line, one symbol, called "three colours", pays 45 to 1.
A bet on 4 in line, one symbol, called "four colours", pays 300 to 1.
A bet on 5 in line, one symbol, called "five colours", pays 2000 to 1.
A bet on all symbols formations, called "ALL", pays 20 to 1 .
A bet on no winning formations, called "NONE", pays 2 to 1 (optional).

Only pure formations generate payouts; for example, a four of a kind formation cannot be interpreted as double pair and two pairs same colour cannot be interpreted as "four colours".

## Object of the game

To win at STReight ${ }^{\text {TM }}$ the player needs to predict what formation(s) the dealer will serve, having the chance to bet on many formations.

Some players go with the winning formations calling them 'hot' formations and therefore likely to come up more times. Others see which formations did not come up for some time and bet on them believing that their turn is now due. Some players bet on many formations to increase their chances of winning at every deal, but this way the payout decrease considerably. Other methodical players use specific STReight ${ }^{\text {TM }}$ systems or methods, money management systems, or both.

## The house advantage

Depending on the payout method used, the house advantage decided by the casino varies. House advantage is minimum $11.11 \%$ for 3 symbols Slots, and minimum $15.52 \%$ for 5 symbols Slots.

## STReight ${ }^{\text {TM }}$ Slots - 3 symbols (colours) version



Three rotating /virtual cylinders on which are printed three colours or other symbols and a control panel with buttons for betting made gambling game.

The two yellow buttons, printed „pair any colour" and "three any colour", are used for betting on a certain formation, any symbol (colour), correspondingly pairs of any colour and three of any colour.

To bet on a certain symbol, regardless the winning formation, but excluding the formations that contain all symbols, the three white buttons having printed all the three symbols (colours) are used.

To bet on certain formations of a certain colour (symbol) the green buttons positioned in the middle of the grid (where the yellow column of formations crosses the white row of symbols) are used.

To bet on all formations that contain all symbols, regardless their order, the „ALL" button must be pressed, and to bet on losable formations, the "NONE" button must be used (this is optional).

After placing the chips or coins into the machine, the player defines bets by pressing one or more buttons. The draw begins, by pushing the "Start" button.

## Example

One player presses the yellow button labelled „pair any colour"; after that, presses the button labelled „ALL", 3 times successively, having as a result a bet totalising 4 chips. After the draw, results a combination formed by all colours. The player wins $3 \times 3$, meaning 9 chips.

| STReight ${ }^{\text {TM }}$ (automatically generated) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 Slots | Combinations |  | Max. Theoretical Paying Factor |  | Max. Recommended Payouts |  | House advantage |  |
| Formations | Any colour | Colour | Any colour | Colour | Any colour | Colour | Any colour | Colour |
| 2 | 12 | 4 | 2.25 | 6.75 | 1:1 | 5:1 | 11.11\% | 11.11\% |
| 3 | 3 | 1 | 9.00 | 27.00 | 7:1 | 23:1 | 11.11\% | 11.11\% |
| ALL | 6 |  | 4.50 |  | 3:1 |  | 11.11\% |  |
| Col. Bet | 5 |  | 5.40 |  | 3:1 |  | 25.93\% |  |
| None | 6 |  | 4.50 |  | 2:1 |  | 33.33\% |  |
| WIN | 21 |  |  |  |  |  |  |  |
| LOSE | 6 | 2.34\% |  |  |  |  |  |  |
| Total | 27 |  |  |  |  |  |  |  |
|  |  | le with | ayouts sug | tions an | ouse adv |  |  |  |

## STReight ${ }^{\text {TM }}$ Slots - cu 5 symbols (colours) version



Five rotating /virtual cylinders on which are printed three colours or other symbols and a control panel with buttons for betting made gambling game.

The four yellow buttons, printed „pair any colour" and "three any colour", are used for betting on a certain formation, any symbol (colour), correspondingly pairs of any colour and three of any colour.

To bet on a certain symbol, regardless the winning formation, but excluding the formations that contain all symbols, the five white buttons having printed all the three symbols (colours) are used.

The green buttons, placed in the middle of the grid (where the yellow column of formations crosses the white row of symbols), are used to bet on certain formations of pre-defined colours (symbols).

By pressing the „ALL" button it can be bet on all formations that contain all symbols, regardless their order, and the „NONE" button, optional, it is used for betting on losable formations.

After placing the chips or coins into the machine, the player defines bets by pressing one or more buttons. The draw begins, by pushing the "Start" button.

## Example

One player bets twice on pairs any colour, once on red pairs, and once on four any colour, having as a result a bet totalising 4 chips. After the draw, results a combination of two red pairs. The player
 wins $2 \times 1$ chips for pairs any colour and 9 chips for red pairs.

## Example

One player bets once on pairs any colour, once on three any colour and once on four black, having as a result a bet totalising 3 chips. After the draw, results a combination of three black pieces in line.


The player wins 8 chips for three any colour.


## Lotto STReight ${ }^{\text {™ }}$

## Game summary

To play Lotto STReight ${ }^{\text {TM }} 8$ the players must choose in an ordered fashion any eight Numbers, from 1 to 8, out of eight numbers. Eight numbers are drawn out of eight, one by one, and after each draw, the drawn number is put back into the drawing device. To win the Jackpot, the player must match all the eight Numbers. A seven Numbers match win the second highest prize. Matches of six, five, four, three and two Numbers win smaller prizes.

## Game description

An electronic /mechanic drawing device with a number of balls inside, usual seven or eight balls numbered or labelled with different symbols, and grids used by the players to mark their combinations, made the Lotto STReight ${ }^{\text {TM }}$ game. After each draw, the drawn ball is put back into the drawing device, being used for all drawings. The drawn combination (of seven or eight Numbers) forms, sequentially, formations that give the value of the prize.

Rule: the number of balls in the drawing device must be equal with the total number of symbols (numbers) used, and the number of the drawn balls must be equal with the number of symbols utilised.

Another alternative of the game may use 64 numbered balls, from 1 to 8, eight balls for each number. In this case, eight balls will be drawn successively without the need to put back the drawn ball into the drawing device, having as result the final eight numbers combination. It is compulsory that the number of drawing items (numbered balls) of the same kind to be equal or higher then the total number of symbols (numbers) used, and the number of the drawn elements to be equal with the number of symbols utilised.

There are different kinds of Lotto STReight ${ }^{\text {TM }}$ as follow: with 3 symbols ( 27 combinations), 4 symbols ( 256 combinations), 5 symbols ( 3,125 combinations), 6 symbols ( 46,656 combinations), 7 symbols ( 823,543 combinations) and 8 symbols ( $16,777,216$ combinations). The game may use nine or more symbols (numbers, colours) but the number of possible combinations rises unusually high (for example, the 9 numbers lotto has $387,420,489$ combinations).

The grid for marking the gambling combination has a betting zone (white) that is divided in sectors arranged on rows and columns, their number being equal with the number of symbols (numbers) being played (usually seven or eight). The numbered sectors (yellow) that represent the numbers for the drawing out marks the rows, and the sequence of played numbers (grey) marks the columns. Consequently, each played number will have a correspondence on a certain row and column.

Grid form for Lotto STReight ${ }^{\text {TM }} 7$
As an alternative, the grid may presents only the betting zone as sectors arranged on rows and columns, the number of rows and columns being equal with the total numbers played (seven or eight). In this case, the columns are printed with all numbers from 1 to 7 , respectively to 8 - correspondingly for each number played, marked in the played combination area (grey). Therefore, each played number will have a correspondence on a certain row and column. The grid could have options for more variants and game possibilities, in accordance with the game rules.


Grid form for Lotto STReight ${ }^{\text {TM }} 7$

For playing the LOTTO game, the players have to choose one or more game combinations and then they have to mark the equivalent of the chosen numbers in the betting zone, so the variant can be red automatically. The players can bet any amount of money and for a bigger gain, they can play more than one number for each position from the drawn combination. In this case, the filled grid will enclose more combinations.

## The payouts

Following the drawing could have been rewarded successively formations from 2 to 8 numbers in accordance to I-VII categories. There are also possible fixed prizes (see the ending tables) and cumulative prizes (report); in the last case, the prize is divided in equal shares.

## Object of the game

To win at STReight ${ }^{\text {TM }}$ the player needs to predict sequentially formations in the drawn combination.

Some players go with the winning formations calling them 'hot' formations and therefore likely to come up more times. Others see which formations did not come up for some time and bet on them believing that their turn is now due. Some players bet on many formations to increase their chances of winning at every deal, but this way the payout decrease considerably. Other methodical players use specific STReight ${ }^{\text {TM }}$ systems or methods, money management systems, or both.

## Lotto STReight ${ }^{\text {TM }} 8$

Lotto STReight ${ }^{\text {TM }} 8$ is constructed from a blending and drawing apparatus (urn, electronic drawing out) in which are eight balls, numbered from 1 to 8 , and the grids for filling the game alternative by the players. After each drawing out, the drawn ball is put back in the
 urn, participating to all the eight drawings, followed by an eight balls (symbols) combination that can have formations, which determine the value of the prize.

The grid for marking the game combination has a betting area (white) divided in 64 sectors arranged on 8 rows and 8 columns. The rows are individualised by sectors (yellow), numbered from 1 to 8 and the columns by succession of the played combination (grey), so each number played will have a correspondence on a certain row.

In other design, the grid presents only the betting zone (white), as 64 sectors arranged on 8 rows and 8 columns, the columns having printed all numbers - from 1 to 8 - accordingly to each played number that is marked in the chosen combination (grey). As a result, each played number will have a correspondence on a certain row.

The grid could have options for more variants and game possibilities, in accordance with the chosen game rules.

For playing the LOTTO game, players have to choose one or more game combinations and then they have to mark the equivalent of the chosen numbers in the betting zone, so the variant can be red automatically. The players can bet any amount of money.


The players will win if in their chosen combination there are sequences of numbers from drawn combination. Following the drawing out could been awarded formations from 2 to 8 , in conformity with VII - I categories. In case of multiple formations, each of them will win separately.

## Example

It was withdrawn the combination 1-2-1-3-8-6-7-1.

One player has bet on 3-8-1-4-6-7-2-2. Because formations of two successively numbers 3-8 and 6-7 match with the drawn combination, the player will win twice 1 , which means twice the sum played.


One player that has choose the combination 6-8-1-3-8-6-1-5 will win 100 for four numbers sequence $1-3-8-6$ that match the drawn combination, respectively hundred times the amount played.

One player that has game combination of 1-8-6-7-1-1-1-2 will win 100 for four numbers sequence of $8-6-7-1$, and 1 for two successive numbers formation 1-2, winning in total 101 times the amount he played.

One player that has game combination of 2-1-3-8-6-7-1-5 will win 100.000 for the seven sequentially numbers formation 2-1-3-8-6-7-1, in that order 100.000 times the amount played.

One player that has game combination of $3-8-5-3-8-6-1-5$ will win 1 for the pair $3-8$ and 10 for three sequentially numbers formation $3-8-6$, winning in total 11 times the amount played.

LOTTO (straight match)


LOTTO (straight match)
STReight ${ }^{\text {TM }} 7$

| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income <br> percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VI | $\mathbf{2}$ | 80,748 | $9.80495250 \%$ | 1 | 80,748 | $9.80 \%$ |
| V | $\mathbf{3}$ | 9,426 | $1.14456683 \%$ | 5 | 47,130 | $5.72 \%$ |
| IV | $\mathbf{4}$ | 1,092 | $0.13259781 \%$ | 50 | 54,600 | $6.63 \%$ |
| III | $\mathbf{5}$ | 120 | $0.01457119 \%$ | 500 | 60,000 | $7.29 \%$ |
| II | $\mathbf{6}$ | 12 | $0.00145712 \%$ | 5,000 | 60,000 | $7.29 \%$ |
| I | $\mathbf{7}$ | 1 | $0.00012143 \%$ | 50,000 | 50,000 | $6.07 \%$ |

Total combinations

823,543
Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 7$

## LOTTO (straight match)

STReight $^{\text {TM }} \mathbf{6}$

| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income <br> percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V | $\mathbf{2}$ (pair) | 5,022 | $10.76388889 \%$ | 1 | 5,022 | $10.76 \%$ |
| IV | $\mathbf{3}$ in line | 661 |  | 5 | 3,305 | $7.08 \%$ |
| III | $\mathbf{4}$ in line | 85 | $0.18218450 \%$ | 50 | 4,250 | $9.11 \%$ |
| II | $\mathbf{5}$ in line | 10 | $0.02143347 \%$ | 500 | 5,000 | $10.72 \%$ |
| I | All $\mathbf{6}$ | 1 | $0.00214335 \%$ | 5,000 | 5,000 | $10.72 \%$ |
| Total <br> Tombinations | 46,656 | 5,779 | $12.3864026 \%$ |  | $\mathbf{2 2 , 5 7 7}$ | $48.39 \%$ |

Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 6$

LOTTO (straight match)
STReight $^{\text {TM }} \quad 5$

| Category | Formations | Total winning combinations | Percentage | Recommended fixed payouts | Payouts | Income percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IV | 2 (pair) | 372 | 11.90400000\% | 1 | 372 | 11.90\% |
| III | 3 in line | 56 | 1.79200000\% | 5 | 280 | 8.96\% |
| 11 | 4 in line | 8 | 0.25600000\% | 50 | 400 | 12.80\% |
| 1 | All 5 | 1 | 0.03200000\% | 500 | 500 | 16.00\% |
|  |  | 437 | 13.9840000\% |  | 1,552 | 49.66\% |
| Total combinations | 3,125 |  |  |  |  |  |

## LOTTO (straight match)

STReight $^{\text {TM }} \mathbf{4}$

| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income <br> percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| III | $\mathbf{2}$ (pair) | 34 | $13.28125000 \%$ | 2 | 68 | $26.56 \%$ |
| II | $\mathbf{3}$ in line | 6 | $2.34375000 \%$ | 5 | 30 | $11.72 \%$ |
| I | All 4 | 1 | $0.39062500 \%$ | 25 | 25 | $9.77 \%$ |
| Total <br> combinations | 256 | 41 | $16.0156250 \%$ |  | $\mathbf{1 2 3}$ | $48.05 \%$ |

Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 4$

LOTTO (straight match)
STReight $^{\text {TM }} \quad 3$


* the tables are examples only; other payout values may be used instead


## Lotto STReight ${ }^{T M}$ by SMS

## The Basics

Lotto STReight ${ }^{T M}$ by SMS can be played from the mobile phone at anytime, similar to a slot game, with a sequence of at least 3 symbols, numbers or letters, in accordance with the type of SMS lotto game.

The player sends to a short number a text SMS that contains a sequence of numbers or letters. After receiving the message, the game server do the withdrawal, compares it with the sequence of numbers received and sends back to the player an SMS with the result of the drawing.

## Game description

In case of Lotto STReight ${ }^{\text {TM }} 5$ by SMS that is played with 5 numbers, the player chooses in order any 5 numbers between 1 and 5 . The player will win if he/she guesses sequential formation in the withdrawn combination. A sequence of five numbers, identical with the withdrawn succession assures the Jackpot. A sequence of four numbers found anywhere in the withdrawn assures the second prize. Smaller sequences, of three or two numbers win smaller prizes.

The game can be played as a true lottery game in case of a weekly drawing only.

## The payouts

Following the drawing could have been rewarded successively formations from 2 to 8 numbers in accordance to I-VII categories. There are possible fixed prizes (see the ending tables) and cumulative prizes (report), as well.

## Object of the game

To win at STReight ${ }^{\text {TM }}$ the player needs to predict sequence of symbols in the drawn combination.

## Lotto STReight ${ }^{\text {TM }} 5$ by SMS (slots variant)

The game is played from the mobile phone in any moment during the day, 7 day a week, similar with a slot game with five numbers.

The player sends to a short number an SMS that contains a sequence of five numbers between 1 and 5, any of them. After receiving the message, the game server do the withdrawal, compares it with the sequence of numbers received and sends back to the player an SMS with the result of the drawing.

The player will win if he/she guesses sequence of numbers in the drawn combination. A sequence of five numbers, identical with the succession withdrawn assures the Jackpot. A sequence of four numbers found anywhere in the withdrawn assures the second prize. Smaller sequences, of three or two numbers win smaller prizes.

## Example

One player sends a SMS with game combination of 3-2-1-4-2. The game server draws combination of 4-2-3-2-2. Because there are formations of two consecutive numbers 4-2 and 3-2 in the withdrawn combination, the player will win twice 1 , respectively twice the amount played.

One player sends a combination of 5-5-1-4-2. The game server draws combination of 4-2-5-5-1. The player will win 5 times for three successive numbers 5-5-1, and 1 time for the two successive number formation of $4-2$, winning in total 6 times the amount played.

One player sends a SMS with the game combination of 5-3-1-3-2. The game server draws combination of 5-3-1-3-2. The player will win the Jackpot, which means 500 times the amount played.

## Lotto STReight ${ }^{\text {TM }} 5$ by SMS (weekly lottery variant)

The player sends to a short number a text SMS that contains a sequence of five numbers between 1 and 5, any of them. After receiving the message, the game server authenticates through a SMS message the registration of the combination.

The mechanically or automatically withdrawal will take place once a week and the winners will be confirmed after that.

The players will win if they manage to guesses sequence of numbers in the drawn combination. A sequence of five numbers identical with the withdrawn combination assures the Jackpot. A sequence of four numbers found anywhere in the withdrawn assures the second prize. Smaller sequences, of three or two numbers win smaller prizes.

## Example

Player $A$ sends an SMS with the game combination of 3-2-1-5-5, player $B$ bets combination of 4-5-3-1-2, and player $C$ has the combination of 5-5-3-2-1.

At the weekly withdrawal it is attained the numbers sequence of 5-5-3-2-1.
Player A will win 1 for two successive numbers formation of 5-5 and 5 for three successive numbers formation of 3-2-1, winning in total 6 times the amount played.

Player B will win 1 for the pair of $5-3$, which means the amount played. Player $C$ wins the Jackpot, which means 500 times the amount played.

> LOTTO (straight match)

STReight $^{\text {TM }} \quad 5$ by SMS


## Calculation models for other complexities of Lotto STReight ${ }^{\text {TM }}$ by SMS

LOTTO
(straight match)
STReight $^{\text {TM }} \quad 8$ by SMS

| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income percent <br> paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VII | $\mathbf{2}$ | $1,507,642$ | $9.55581771 \%$ | 1 | $1,507,642$ | $8.99 \%$ |
| VI | $\mathbf{3}$ | 158,004 | $1.00146946 \%$ | 10 | $1,580,040$ | $9.42 \%$ |
| V | $\mathbf{4}$ | 16,578 | $0.10507557 \%$ | 100 | $1,657,800$ | $9.88 \%$ |
| IV | $\mathbf{5}$ | 1,680 | $0.01064827 \%$ | 1,000 | $1,680,000$ | $10.01 \%$ |
| III | $\mathbf{6}$ | 161 | $0.00102046 \%$ | 10,000 | $1,610,000$ | $9.60 \%$ |
| II | $\mathbf{7}$ | 14 | $0.00008874 \%$ | 100,000 | $1,400,000$ | $8.34 \%$ |
| I | $\mathbf{8}$ | 1 | $0.00000634 \%$ | $1,000,000$ | $1,000,000$ | $5.96 \%$ |
| Total <br> Combinations | $16,777,216$ | $1,684,080$ | $10.6741265 \%$ |  | $\mathbf{1 0 , 4 3 5 , 4 8 2}$ | $62.20 \%$ |

Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 8$ by SMS

## LOTTO (straight match)

STReight ${ }^{\text {TM }} \quad \mathbf{7}$ by SMS

| Category | Formations | Total winning combinations | Percentage | Recommended fixed payouts | Payouts | Income percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VI | 2 | 80,748 | 9.80495250\% | 1 | 80,748 | 9.80\% |
| V | 3 | 9,426 | 1.14456683\% | 5 | 47,130 | 5.72\% |
| IV | 4 | 1,092 | 0.13259781\% | 50 | 54,600 | 6.63\% |
| III | 5 | 120 | 0.01457119\% | 500 | 60,000 | 7.29\% |
| II | 6 | 12 | 0.00145712\% | 5,000 | 60,000 | 7.29\% |
| 1 | 7 | 1 | 0.00012143\% | 50,000 | 50,000 | 6.07\% |
|  |  | 91,399 | 11.0982669\% |  | 352,478 | 42.80\% |
| Total combination | 823,543 |  |  |  |  |  |

LOTTO (straight match)
STReight ${ }^{\text {TM }} \mathbf{6}$ by SMS

| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income percent paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V | $\mathbf{2}$ (pair) | 5,022 | $10.76388889 \%$ | 1 | 5,022 | $10.76 \%$ |
| IV | $\mathbf{3}$ in line | 661 | $1.41675240 \%$ | 5 | 3,305 | $7.08 \%$ |
| III | $\mathbf{4}$ in line | 85 | $0.18218450 \%$ | 50 | 4,250 | $9.11 \%$ |
| II | $\mathbf{5}$ in line | 10 | $0.02143347 \%$ | 500 | 5,000 | $10.72 \%$ |
| I | All $\mathbf{6}$ | 1 | $0.00214335 \%$ | 5,000 | 5,000 | $10.72 \%$ |

Total 46,656
combinations
Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 6$ by SMS

LOTTO (straight match)

| STReight $^{\text {TM }}$ | $\mathbf{4}$ by SMS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Category | Formations | Total winning <br> combinations | Percentage | Recommended <br> fixed payouts | Payouts | Income percent paid |
| III | $\mathbf{2}$ (pair) | 34 | 13.28125000 <br> $\%$ | 2 | 68 | $26.56 \%$ |
| II | $\mathbf{3}$ in line | 6 | $2.34375000 \%$ | 5 | 30 | $11.72 \%$ |
| I | All 4 | 1 | $0.39062500 \%$ | 25 | 25 | $9.77 \%$ |

Total
256
combinations
Table with possible formations and fixed payouts suggestions for Lotto STReight ${ }^{\text {TM }} 4$ by SMS

LOTTO

> (straight match)


* the tables are examples only; other payout values may be used instead

