```
import numpy as np
import random
from time import sleep

def create_board():
  return(np.array([[0, 0, 0],
                   [0, 0, 0],
                   [0, 0, 0]]))

def possibilities(board):
      l = []
      for i in range(len(board)):
        for j in range(len(board)):
          if board[i][j] == 0:
            l.append((i, j))
      return(l)

def random_place(board, player):
  selection = possibilities(board)
  current_loc = random.choice(selection)
  board[current_loc] = player
  return(board)

def row_win(board, player):
  for x in range(len(board)):
    win = True
    for y in range(len(board)):
      if board[x, y] != player:
        win = False
        continue
    if win == True:
      return(win)
  return(win)

def col_win(board, player):
  for x in range(len(board)):
    win = True
    for y in range(len(board)):
      if board[y][x] != player:
        win = False
        continue
    if win == True:
      return(win)
  return(win)

def diag_win(board, player):
  win = True
  y = 0
  for x in range(len(board)):
    if board[x, x] != player:
      win = False
```

```
  if win:
    return win
  win = True
  if win:
    for x in range(len(board)):
      y = len(board) - 1 - x
      if board[x, y] != player:
        win = False
  return win

def evaluate(board):
  winner = 0
  for player in [1, 2]:
    if (row_win(board, player) or col_win(board,player) or
diag_win(board,player)):
      winner = player
  if np.all(board != 0) and winner == 0:
    winner = -1
  return winner


def play_game():
  board, winner, counter = create_board(), 0, 1
  print(board)
  sleep(2)

  while winner == 0:
    for player in [1, 2]:
      board = random_place(board, player)
      print("Board after " + str(counter) + " move")
      print(board)
      sleep(2)
      counter += 1
      winner = evaluate(board)
      if winner != 0:
        break
  return(winner)

print("Winner is: " + str(play_game()))
```

```
[[0 0 0]
 [0 0 0]
 [0 0 0]]
Board after 1 move
[[0 0 0]
 [1 0 0]
 [0 0 0]]
Board after 2 move
[[0 0 0]
 [1 0 0]
 [0 2 0]]
```

```
Board after 3 move
[[0 1 0]
 [1 0 0]
 [0 2 0]]
Board after 4 move
[[0 1 0]
 [1 0 0]
 [2 2 0]]
Board after 5 move
[[0 1 1]
 [1 0 0]
 [2 2 0]]
Board after 6 move
[[0 1 1]
 [1 0 0]
 [2 2 2]]
Winner is: 2
```