



Coinsult

Advanced Manual Smart Contract Audit



Project: Sex To Earn

Website: No website

● **Low-Risk**

9 low-risk code
issues found

● **Medium-Risk**

0 medium-risk code
issues found

● **High-Risk**

0 high-risk code
issues found

Contract Address

0xe7BD139FC3CD3Ae9F8Cf59f1fC2e966cECceb407

Disclaimer: Coinsult is not responsible for any financial losses. Nothing in this contract audit is financial advice, please do your own research.

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Coinsult is not responsible if a project turns out to be a scam, rug-pull or honeypot. We only provide a detailed analysis for your own research.

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Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0x2a59b7147b8e522894b2fb870cebc776b5f715e0	100,000,000	100.0000%

Source Code

Coinsult was commissioned by Sex To Earn to perform an audit based on the following smart contract:

<https://bscscan.com/address/0xe7bd139fc3cd3ae9f8cf59f1fc2e966cecceb407#code>

Manual Code Review

In this audit report we will highlight all these issues:

Low-Risk

9 low-risk code
issues found

Medium-Risk

0 medium-risk code
issues found

High-Risk

0 high-risk code
issues found

The detailed report continues on the next page...

● **Low-Risk:** Could be fixed, will not bring problems.

Contract contains Reentrancy vulnerabilities

Additional information: This combination increases risk of malicious intent. While it may be justified by some complex mechanics (e.g. rebase, reflections, buyback).

More information: Slither

```
function _transfer(
    address from,
    address to,
    uint256 amount
) internal override {
    require(from != address(0), "ERC20: transfer from the zero address");
    require(to != address(0), "ERC20: transfer to the zero address");

    if (amount == 0) {
        super._transfer(from, to, 0);
        return;
    }

    if (!tradingActive) {
        require(
            !_isExcludedFromFees[from] || !_isExcludedFromFees[to],
            "Trading is not active."
        );
    }

    if (limitsInEffect) {
        if (
```

Recommendation

Apply the check-effects-interactions pattern.

Exploit scenario

```
function withdrawBalance(){
    // send userBalance[msg.sender] Ether to msg.sender
    // if msg.sender is a contract, it will call its fallback function
    if( ! (msg.sender.call.value(userBalance[msg.sender]))() ) ){
        throw;
    }
    userBalance[msg.sender] = 0;
}
```

Bob uses the re-entrancy bug to call withdrawBalance two times, and withdraw more than its initial deposit to the contract.

● **Low-Risk:** Could be fixed, will not bring problems.

Too many digits

Literals with many digits are difficult to read and review.

```
newAmount &gt;= (totalSupply() * 1) / 100000,
```

Recommendation

Use: Ether suffix, Time suffix, or The scientific notation

Exploit scenario

```
contract MyContract{
    uint 1_ether = 1000000000000000000;
}
```

While 1_ether looks like 1 ether, it is 10 ether. As a result, it's likely to be used incorrectly.

● **Low-Risk:** Could be fixed, will not bring problems.

No zero address validation for some functions

Detect missing zero address validation.

```
function updateDevWallet(address newWallet) external onlyOwner {  
    emit devWalletUpdated(newWallet, devWallet);  
    devWallet = newWallet;  
}
```

Recommendation

Check that the new address is not zero.

Exploit scenario

```
contract C {  
  
    modifier onlyAdmin {  
        if (msg.sender != owner) throw;  
        _;  
    }  
  
    function updateOwner(address newOwner) onlyAdmin external {  
        owner = newOwner;  
    }  
}
```

Bob calls updateOwner without specifying the newOwner, so Bob loses ownership of the contract.

● **Low-Risk:** Could be fixed, will not bring problems.

Functions that send Ether to arbitrary destinations

Unprotected call to a function sending Ether to an arbitrary address.

```
function swapBack() private {
    uint256 contractBalance = balanceOf(address(this));

    // prevent extremely large dumps.
    if (contractBalance > swapTokensAtAmount * 5) {
        contractBalance = swapTokensAtAmount * 5;
    }

    uint256 totalTokensToSwap = tokensForLiquidity +
        tokensForMarketing +
        tokensForDev +
        tokensForBuyBack;
    bool success;

    if (contractBalance == 0 || totalTokensToSwap == 0) {
        return;
    }

    // Halve the amount of liquidity tokens
    uint256 liquidityTokens = (contractBalance * tokensForLiquidity) /
        totalTokensToSwap /
        2;
```

Recommendation

Ensure that an arbitrary user cannot withdraw unauthorized funds.

Exploit scenario

```
contract ArbitrarySend{
    address destination;
    function setDestination(){
        destination = msg.sender;
    }

    function withdraw() public{
        destination.transfer(this.balance);
    }
}
```

Bob calls setDestination and withdraw. As a result he withdraws the contract's balance.

● **Low-Risk:** Could be fixed, will not bring problems.

Write after write

Variables that are written but never read and written again.

```
function swapBack() private {
    uint256 contractBalance = balanceOf(address(this));

    // prevent extremely large dumps.
    if (contractBalance > swapTokensAtAmount * 5) {
        contractBalance = swapTokensAtAmount * 5;
    }

    uint256 totalTokensToSwap = tokensForLiquidity +
        tokensForMarketing +
        tokensForDev +
        tokensForBuyBack;
    bool success;

    if (contractBalance == 0 || totalTokensToSwap == 0) {
        return;
    }

    // Halve the amount of liquidity tokens
    uint256 liquidityTokens = (contractBalance * tokensForLiquidity) /
        totalTokensToSwap /
        2;
```

Recommendation

Fix or remove the writes.

Exploit scenario

```
```solidity
contract Buggy{
 function my_func() external initializer{
 // ...
 a = b;
 a = c;
 // ..
 }
}
```

`a` is first assigned to `b`, and then to `c`. As a result the first write does nothing.



● **Low-Risk:** Could be fixed, will not bring problems.

## Divide before multiply

Solidity integer division might truncate. As a result, performing multiplication before division can sometimes avoid loss of precision.

```
fees = amount.mul(sellTotalFees).div(100);
```

## Recommendation

Consider ordering multiplication before division.

## Exploit scenario

```
contract A {
 function f(uint n) public {
 coins = (oldSupply / n) * interest;
 }
}
```

If  $n$  is greater than `oldSupply`, `coins` will be zero. For example, with `oldSupply = 5`; `n = 10`, `interest = 2`, `coins` will be zero. If  $(oldSupply * interest / n)$  was used, `coins` would have been 1. In general, it's usually a good idea to re-arrange arithmetic to perform multiplication before division, unless the limit of a smaller type makes this dangerous.

● **Low-Risk:** Could be fixed, will not bring problems.

## Missing events arithmetic

Detect missing events for critical arithmetic parameters.

```
function updateBuyFees(
 uint256 _marketingFee,
 uint256 _liquidityFee,
 uint256 _devFee,
 uint256 _buyBackFee
) external onlyOwner {
 buyMarketingFee = _marketingFee;
 buyLiquidityFee = _liquidityFee;
 buyDevFee = _devFee;
 buyBuyBackFee = _buyBackFee;
 buyTotalFees =
 buyMarketingFee +
 buyLiquidityFee +
 buyDevFee +
 buyBuyBackFee;
 require(buyTotalFees <= 20, "Must keep fees at 20% or less");
}
```

## Recommendation

Emit an event for critical parameter changes.

## Exploit scenario

```
contract C {

 modifier onlyAdmin {
 if (msg.sender != owner) throw;
 _;
 }

 function updateOwner(address newOwner) onlyAdmin external {
 owner = newOwner;
 }
}
```

updateOwner() has no event, so it is difficult to track off-chain changes in the buy price.

● **Low-Risk:** Could be fixed, will not bring problems.

## Redundant Statements

Detect the usage of redundant statements that have no effect.

```
function _msgData() internal view virtual returns (bytes calldata) {
 this;
 return msg.data;
}
```

## Recommendation

Remove redundant statements if they congest code but offer no value.

## Exploit scenario

```
contract RedundantStatementsContract {

 constructor() public {
 uint; // Elementary Type Name
 bool; // Elementary Type Name
 RedundantStatementsContract; // Identifier
 }

 function test() public returns (uint) {
 uint; // Elementary Type Name
 assert; // Identifier
 test; // Identifier
 return 777;
 }
}
```

Each commented line references types/identifiers, but performs no action with them, so no code will be generated for such statements and they can be removed.

● **Low-Risk:** Could be fixed, will not bring problems.

## Costly operations inside a loop

Costly operations inside a loop might waste gas, so optimizations are justified.

```
function swapBack() private {
 uint256 contractBalance = balanceOf(address(this));

 // prevent extremely large dumps.
 if (contractBalance > swapTokensAtAmount * 5) {
 contractBalance = swapTokensAtAmount * 5;
 }

 uint256 totalTokensToSwap = tokensForLiquidity +
 tokensForMarketing +
 tokensForDev +
 tokensForBuyBack;
 bool success;

 if (contractBalance == 0 || totalTokensToSwap == 0) {
 return;
 }
}
```

## Recommendation

Use a local variable to hold the loop computation result.

## Exploit scenario

```
contract CostlyOperationsInLoop{

 function bad() external{
 for (uint i=0; i < loop_count; i++){
 state_variable++;
 }
 }

 function good() external{
 uint local_variable = state_variable;
 for (uint i=0; i < loop_count; i++){
 local_variable++;
 }
 state_variable = local_variable;
 }
}
```

Incrementing `state_variable` in a loop incurs a lot of gas because of expensive `SSTOREs`, which might lead to an out-of-gas.

## Owner privileges

- Owner can change max transaction amount
- Owner can set fees higher than 25%
- Owner can exclude from fees
- Owner can pause the contract
- ⚠ Owner can set max wallet balance

## Extra notes by the team

No notes

# Contract Snapshot

```
contract sex2earn is ERC20, Ownable {
 using SafeMath for uint256;

 IUniswapV2Router02 public immutable uniswapV2Router;
 address public immutable uniswapV2Pair;
 address public constant deadAddress = address(0xdead);

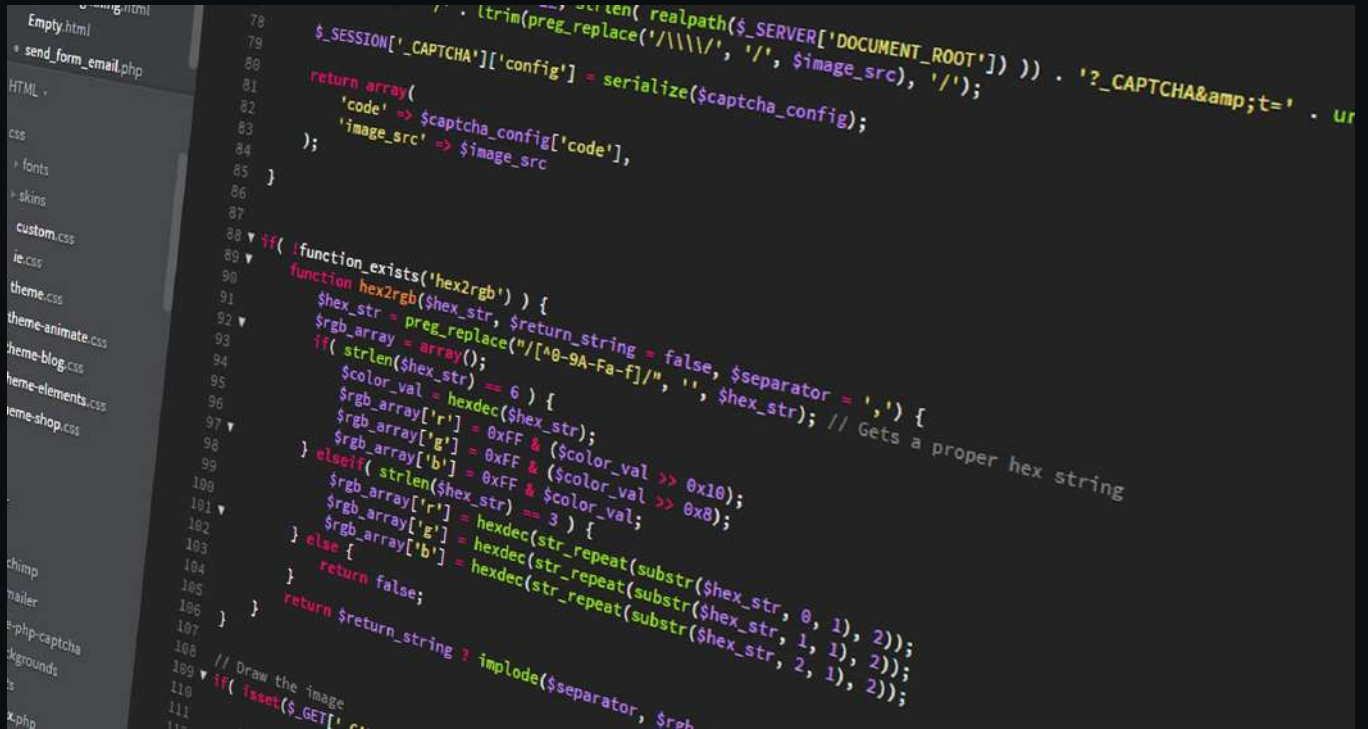
 bool private swapping;

 address public marketingWallet;
 address public devWallet;
 address public buyBackWallet;

 uint256 public maxTransactionAmount;
 uint256 public swapTokensAtAmount;
 uint256 public maxWallet;
```

# Website Review

Coinconsult checks the website completely manually and looks for visual, technical and textual errors. We also look at the security, speed and accessibility of the website. In short, a complete check to see if the website meets the current standard of the web development industry.



- Mobile Friendly
- Does not contain jQuery errors
- SSL Secured
- No major spelling errors

# Project Overview

● Not KYC verified by Coinsult

**AUDITED**  
BY COINSULT.NET

