

# SMART CONTRACT SECURITY AUDIT

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## TRONQUEEN

[ Tron Smart Contract ]

# PROJECT DETAILS

- **Project Name** : TRON QUEEN
- **Technology** : Blockchain Smart Contract
- **Blockchain** : Tron Blockchain
- **Programming Language** : Solidity
- **Version** : 0.5.4
- **Contract Type**: Decentralized Smart Contract
- **Category** : ROI Smart Contract
- **Website**: <https://tronqueen.com>
  
- **Audit Type**: Function Report and Backdoor Check
- **File(s) Audited**: tronqueen\_retest1.sol,
- **Audit No** : : 02100620552

# INFIGO

# Disclaimer

INFIGO only audits the source code for security and its functions. We don't audit for the contract logic honesty. This report is for the source code given and the contract deployed at the address mentioned in this document and doesn't guarantee if the contract is being deployed to another address or any alterations made. We have nothing to do if the contract functioning contains risks like gambling and other functions.

## Function Report

### Variables and Constants :

1. **REFERRAL\_PERCENTS**: There are Ten levels of referral commissions as 5%, 3%, 2%, 1%, 1%, 0.5%, 0.5%, 0.5%, 0.5%, 1%.
2. **TIME\_STEP**: A Day counter used in computations.

### Functions :

As private and internal functions are called only from the external functions, we don't mention them separately.

1. **Invest()** - This function is used to make a **deposit** in the system. This function accepts a **referral id**. A 10% of the deposit will directly goes to the contract's Owner , Marketing, Technical and developer wallets. The minimum amount to make a successful deposit is **200 TRX**.

**Referral bonuses are paid in this function transferred directly to the wallets.**

**Note:** *Users are not allowed to register in the system without referral.*

2. **withdraw ()** - This function is totally safe. The base rate of **ROI** is **2%**. There are two other factors that affect the user's profit rate.

i) **contract balance** : Each increase of amount of 1M TRX in the contract increases **0.1%** global rate. The maximum amount is **1%**. The second source of rate increase is by holding profits.

ii) **Holding** : Each day of hold increases the rate by **0.1% up to 2%**.

**7%** of dividends directly goes to the system managing wallets. **70%** goes directly to the user's wallet and the remaining goes to the contract. **There is no limitation on withdrawal amount.** Maximum profit is **300%** of the investment.

3. **participate ()** - This function adds the wallet to the lottery game list. Each ticket costs 50trx and the user have to be first invested in the contract in order to be able to buy a ticket. Users can buy unlimited number of tickets.

4. **draw ()** - This function draws the lottery every 24 hours. Everyone can call this function. **generateRandomNumber()** is used to generate a random number. Note that it's not recommended way of generating random number. 30% of jackpot directly goes to the winner's wallet and 20% goes to the system managing wallets. The remaining goes to the contract.

### **Vulnerabilities and Improvements**

- The contract doesn't care about overflows and underflows. However, as the inputs to the contract are limited then this **vulnerability is handled**.
- Random number generation method is not safe. Miners can exploit this function.

# Summary of the Audit :

- **No Backdoors or Vulnerabilities** were found on the TRON QUEEN Contract.
- **TRON QUEEN'S code** is **safe** to use in the Tron Main Network.
- Some optimizations can be applied.



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