RAPID LABS

SMART CONTRACT SECURITY AUDIT

Final report **Plan: Simple**

Revert Finance

July 2022

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INTRODUCTION

The report has been prepared for Revert Finance. Revert Compoundor protocol allows for the automation through awarding executors (compoundors) a small fee to compensate for their gas costs, and a simple mechanism that incentivizes the compounding of positions as close to optimal as possible. The code is available in the Github repository. The code was checked in the cee8623 commit.

Name	Revert Finance
Audit date	2022-07-25 - 2022-07-29
Language	Solidity
Platform	Ethereum

ANALYZED CONTRACTS

Name	Address
ICompoundor	https://github.com/revert-finance/compoundor/blob/cee8623433aa8567090e9a64fc4a4c42ed9b24d2/contracts/ICompoundor.sol
Compoundor	https://github.com/revert-finance/compoundor/blob/cee8623433aa8567090e9a64fc4a4c42ed9b24d2/contracts/Compoundor.sol

AUDIT PROCESS

Our audit structure consists of two stages:

Auto-analysis

- Our automated tools allow us to scan smart contract code and find potential issues
- We hand pick and verify all the issues found by the tools

Expert audit

- Manual analysis of potential issues and vulnerabilities
- Contract code is reviewed thoroughly

KNOWN ISSUES CHECKED

Title	Result
Unencrypted Private Data On-Chain	✓ passed
Code With No Effects	✓ passed
Message call with hardcoded gas amount	✓ passed
Typographical Error	✓ passed
DoS With Block Gas Limit	✓ passed
Presence of unused variables	✓ passed
Incorrect Inheritance Order	✓ passed
Requirement Violation	✓ passed
Weak Sources of Randomness from Chain Attributes	✓ passed

Shadowing State Variables	✓ passed
Incorrect Constructor Name	✓ passed
Block values as a proxy for time	✓ passed
Authorization through tx.origin	✓ passed
DoS with Failed Call	✓ passed
Delegatecall to Untrusted Callee	✓ passed
Use of Deprecated Solidity Functions	✓ passed
Assert Violation	✓ passed
State Variable Default Visibility	✓ passed
Reentrancy	✓ passed
Unprotected SELFDESTRUCT Instruction	✓ passed
Unprotected Ether Withdrawal	✓ passed
Unchecked Call Return Value	✓ passed
Floating Pragma	✗ not passed
Outdated Compiler Version	✓ passed

Integer Overflow and Underflow	✓ passed
Function Default Visibility	✓ passed

ISSUE CLASSIFICATION

High risk	Issues leading to assets theft, locking or any other loss of assets or leading to contract malfunctioning.
Medium risk	Issues that can trigger a contract failure of malfunctioning.
Low risk	Issues that do now affect contract functionality. For example, unoptimised gas usage, outdated or unused code, code style violations, etc.

ISSUES

High risk issues

No issues were found

Medium risk issues

No issues were found

Low risk issues

1. Unused import (ICompoundor)

The `IERC20Metadata` import is not used in this contract.

2. Constructor lacks validation of input parameters (Compoundor)

The contract constructor does not check the addresses `_weth`, `_factory`, `_nonfungiblePositionManager` and `_swapRouter` against a null address.

3. Unused variable (Compoundor)

The `weth` variable is not used in the contract.

4. Floating Pragma (Compoundor)

Contracts should be deployed with the same compiler version and flags that they have been

tested with thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively.

CONCLUSION

Revert Finance ICompoundor, Compoundor contracts were audited. 4 low risk issues were found.

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This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

SLITHER OUTPUT

```
Reentrancy in Compoundor._addToken(uint256,address) (contracts/
Compoundor.sol#377-388):
        External calls:
        - _checkApprovals(IERC20(token0),IERC20(token1)) (contracts/
Compoundor.sol#384)
                - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
                -
SafeERC20.safeApprove(token0,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#394)
                - SafeERC20.safeApprove(token0,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#395)
                - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
                -
SafeERC20.safeApprove(token1,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#399)
                - SafeERC20.safeApprove(token1,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#400)
        External calls sending eth:
        - _checkApprovals(IERC20(token0),IERC20(token1)) (contracts/
Compoundor.sol#384)
                - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
        State variables written after the call(s):
        - accountTokens[account].push(tokenId) (contracts/Compoundor.sol#386)
Reentrancy in Compoundor._withdrawFullBalances(address,address,address) (contracts/
Compoundor.sol#358-367):
        External calls:
        - _withdrawBalanceInternal(token0,to,balance0,balance0) (contracts/
Compoundor.sol#361)
                - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
                - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
                - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
```

```
    - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
        - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
        - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    External calls sending eth:
    - _withdrawBalanceInternal(token0,to,balance0,balance0) (contracts/
Compoundor.sol#361)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    State variables written after the call(s):
    - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
        - accountBalances[msg.sender][token] = accountBalances[msg.sender]
[token].sub(amount) (contracts/Compoundor.sol#371)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities

Compoundor.autoCompound(ICompoundor.AutoCompoundParams) (contracts/
Compoundor.sol#137-250) performs a multiplication on the result of a division:
    -state.amount1Fees =
addedTotal0.mul(state.priceX96).div(Q96).mul(totalRewardX64).div(Q64) (contracts/
Compoundor.sol#213)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) performs a multiplication on the result of a division:
    -priceX96 = uint256(state.sqrtPriceX96).mul(state.sqrtPriceX96).div(Q96)
(contracts/Compoundor.sol#503)
    -state.rewardAmount1 = state.totalReward0.mul(priceX96).div(Q96) (contracts/
Compoundor.sol#594)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) performs a multiplication on the result of a division:
    -priceX96 = uint256(state.sqrtPriceX96).mul(state.sqrtPriceX96).div(Q96)
```

(contracts/Compoundor.sol#503)
-state.rewardAmount1 = state.totalReward0.mul(priceX96).div(Q96) (contracts/Compoundor.sol#553)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/Compoundor.sol#476-613) performs a multiplication on the result of a division:
-priceX96 = uint256(state.sqrtPriceX96).mul(state.sqrtPriceX96).div(Q96) (contracts/Compoundor.sol#503)
-state.delta0 = amount0.mul(Q96).sub(state.amountRatioX96.mul(amount1)).div(state.amountRatioX96.mul(priceX96).div(Q96).add(Q96)) (contracts/Compoundor.sol#529)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/Compoundor.sol#476-613) performs a multiplication on the result of a division:
-priceX96 = uint256(state.sqrtPriceX96).mul(state.sqrtPriceX96).div(Q96) (contracts/Compoundor.sol#503)
-state.delta1 = state.delta0.mul(priceX96).div(Q96) (contracts/Compoundor.sol#580)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/Compoundor.sol#476-613) performs a multiplication on the result of a division:
-priceX96 = uint256(state.sqrtPriceX96).mul(state.sqrtPriceX96).div(Q96) (contracts/Compoundor.sol#503)
-state.delta0 = state.amountRatioX96.mul(amount1).sub(amount0.mul(Q96)).div(state.amountRatioX96.mul(priceX96).div(Q96).add(Q96)) (contracts/Compoundor.sol#531)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv = (3 * denominator) 2 (contracts/external/uniswap/v3-core/libraries/FullMath.sol#87)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#91)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#92)

FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#93)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#94)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#95)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-denominator = denominator / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#67)
-inv *= 2 - denominator * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#96)
FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) performs a multiplication on the result of a division:
-prod0 = prod0 / twos (contracts/external/uniswap/v3-core/libraries/FullMath.sol#72)
-result = prod0 * inv (contracts/external/uniswap/v3-core/libraries/FullMath.sol#104)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#divide-before-multiply

Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/Compoundor.sol#476-613) uses a dangerous strict equality:
- state.positionAmount0 == 0 (contracts/Compoundor.sol#519)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/Compoundor.sol#476-613) uses a dangerous strict equality:
- state.positionAmount1 == 0 (contracts/Compoundor.sol#522)

```
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses a dangerous strict equality:
    - params.bc == RewardConversion.TOKEN_0 (contracts/Compoundor.sol#537)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses a dangerous strict equality:
    - params.bc == RewardConversion.TOKEN_1 (contracts/Compoundor.sol#552)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses a dangerous strict equality:
    - params.bc == RewardConversion.TOKEN_0 (contracts/Compoundor.sol#591)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses a dangerous strict equality:
    - params.bc == RewardConversion.TOKEN_1 (contracts/Compoundor.sol#593)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses a dangerous strict equality:
    - params.bc == RewardConversion.NONE (contracts/Compoundor.sol#605)
Compoundor.autoCompound(ICompoundor.AutoCompoundParams) (contracts/
Compoundor.sol#137-250) uses a dangerous strict equality:
    - state.tokenOwner == msg.sender (contracts/Compoundor.sol#227)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-
strict-equalities

Reentrancy in Compoundor.autoCompound(ICompoundor.AutoCompoundParams)
(contracts/Compoundor.sol#137-250):
    External calls:
    - (state.amount0,state.amount1) = nonfungiblePositionManager.collect(INonfungi
blePositionManager.CollectParams(params.tokenId,address(this),type()(uint128).max,type()
(uint128).max)) (contracts/Compoundor.sol#148-150)
    - (state.amount0,state.amount1,state.priceX96,state.maxAddAmount0,state.max
AddAmount1) = _swapToPriceRatio(swapParams) (contracts/Compoundor.sol#180-181)
        - amountOut = swapRouter.exactInput(ISwapRouter.ExactInputParams(s
wapPath,address(this),deadline,amount,0)) (contracts/Compoundor.sol#617-619)
    - (None,compounded0,compounded1) = nonfungiblePositionManager.increaseLiq
uidity(INonfungiblePositionManager.IncreaseLiquidityParams(params.tokenId,state.maxAdd
Amount0,state.maxAddAmount1,0,0,block.timestamp)) (contracts/
Compoundor.sol#185-194)
    State variables written after the call(s):
    - _setBalance(state.tokenOwner,state.token0,state.amount0.sub(compounded0).
sub(state.amount0Fees)) (contracts/Compoundor.sol#223)
        - accountBalances[account][token] = amount (contracts/
Compoundor.sol#350)
```

- accountBalances[account][token] = amount (contracts/Compoundor.sol#353)
- _setBalance(state.tokenOwner,state.token1,state.amount1.sub(compounded1).sub(state.amount1Fees)) (contracts/Compoundor.sol#224)
- accountBalances[account][token] = amount (contracts/Compoundor.sol#350)
- accountBalances[account][token] = amount (contracts/Compoundor.sol#353)
- _increaseBalance(msg.sender,state.token0,reward0) (contracts/Compoundor.sol#238)
- accountBalances[account][token] = accountBalances[account][token].add(amount) (contracts/Compoundor.sol#342)
- _increaseBalance(msg.sender,state.token1,reward1) (contracts/Compoundor.sol#239)
- accountBalances[account][token] = accountBalances[account][token].add(amount) (contracts/Compoundor.sol#342)
- _increaseBalance(owner(),state.token0,protocolFees0) (contracts/Compoundor.sol#240)
- accountBalances[account][token] = accountBalances[account][token].add(amount) (contracts/Compoundor.sol#342)
- _increaseBalance(owner(),state.token1,protocolFees1) (contracts/Compoundor.sol#241)
- accountBalances[account][token] = accountBalances[account][token].add(amount) (contracts/Compoundor.sol#342)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-1

Compoundor.autoCompound(ICompoundor.AutoCompoundParams).state (contracts/Compoundor.sol#145) is a local variable never initialized
Compoundor._swapToPriceRatio(Compoundor.SwapParams).state (contracts/Compoundor.sol#480) is a local variable never initialized
Compoundor._getTWAPTick(IUniswapV3Pool,uint32).tickCumulatives (contracts/Compoundor.sol#431) is a local variable never initialized

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables

Compoundor.decreaseLiquidityAndCollect(ICompoundor.DecreaseLiquidityAndCollectParams) (contracts/Compoundor.sol#259-285) ignores return value by nonfungiblePositionManager.collect(collectParams) (contracts/Compoundor.sol#284)

```
Compoundor._getTWAPTick(IUniswapV3Pool,uint32) (contracts/
Compoundor.sol#426-436) ignores return value by pool.observe(secondsAgos)
(contracts/Compoundor.sol#431-435)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return

Compoundor.constructor(address,IUniswapV3Factory,INonfungiblePositionManager,ISwap
Router)._weth (contracts/Compoundor.sol#57) lacks a zero-check on :
        - weth = _weth (contracts/Compoundor.sol#58)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-
address-validation

Variable 'Compoundor._getTWAPTick(IUniswapV3Pool,uint32).tickCumulatives
(contracts/Compoundor.sol#431)' in
Compoundor._getTWAPTick(IUniswapV3Pool,uint32) (contracts/
Compoundor.sol#426-436) potentially used before declaration: (int24((tickCumulatives[0]
- tickCumulatives[1]) / twapPeriod),true) (contracts/Compoundor.sol#432)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#pre-declaration-
usage-of-local-variables

Reentrancy in Compoundor._addToken(uint256,address) (contracts/
Compoundor.sol#377-388):
    External calls:
    - _checkApprovals(IERC20(token0),IERC20(token1)) (contracts/
Compoundor.sol#384)
        - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
        -
SafeERC20.safeApprove(token0,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#394)
        - SafeERC20.safeApprove(token0,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#395)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
        -
SafeERC20.safeApprove(token1,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#399)
        - SafeERC20.safeApprove(token1,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#400)
    External calls sending eth:
```

```
    - _checkApprovals(IERC20(token0),IERC20(token1)) (contracts/
Compoundor.sol#384)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    State variables written after the call(s):
    - ownerOf[tokenId] = account (contracts/Compoundor.sol#387)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities-2

Reentrancy in Compoundor._withdrawBalanceInternal(address,address,uint256,uint256)
(contracts/Compoundor.sol#369-375):
    External calls:
    - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
    Event emitted after the call(s):
    - BalanceWithdrawn(msg.sender,token,to,amount) (contracts/
Compoundor.sol#374)
Reentrancy in Compoundor._withdrawFullBalances(address,address,address) (contracts/
Compoundor.sol#358-367):
    External calls:
    - _withdrawBalanceInternal(token0,to,balance0,balance0) (contracts/
Compoundor.sol#361)
        - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
        - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
        - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
        - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    External calls sending eth:
    - _withdrawBalanceInternal(token0,to,balance0,balance0) (contracts/
Compoundor.sol#361)
```

```
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
        - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
    Event emitted after the call(s):
    - BalanceRemoved(msg.sender,token,amount) (contracts/Compoundor.sol#372)
        - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
    - BalanceWithdrawn(msg.sender,token,to,amount) (contracts/
Compoundor.sol#374)
        - _withdrawBalanceInternal(token1,to,balance1,balance1) (contracts/
Compoundor.sol#365)
Reentrancy in Compoundor.autoCompound(ICompoundor.AutoCompoundParams)
(contracts/Compoundor.sol#137-250):
    External calls:
    - (state.amount0,state.amount1) = nonfungiblePositionManager.collect(INonfungi
blePositionManager.CollectParams(params.tokenId,address(this),type()(uint128).max,type()
(uint128).max)) (contracts/Compoundor.sol#148-150)
    - (state.amount0,state.amount1,state.priceX96,state.maxAddAmount0,state.max
AddAmount1) = _swapToPriceRatio(swapParams) (contracts/Compoundor.sol#180-181)
        - amountOut = swapRouter.exactInput(ISwapRouter.ExactInputParams(s
wapPath,address(this),deadline,amount,0)) (contracts/Compoundor.sol#617-619)
    - (None,compounded0,compounded1) = nonfungiblePositionManager.increaseLiq
uidity(INonfungiblePositionManager.IncreaseLiquidityParams(params.tokenId,state.maxAdd
Amount0,state.maxAddAmount1,0,0,block.timestamp)) (contracts/
Compoundor.sol#185-194)
    Event emitted after the call(s):
    - BalanceAdded(account,token,amount) (contracts/Compoundor.sol#343)
        - _increaseBalance(msg.sender,state.token0,reward0) (contracts/
Compoundor.sol#238)
    - BalanceAdded(account,token,amount) (contracts/Compoundor.sol#343)
        - _increaseBalance(msg.sender,state.token1,reward1) (contracts/
Compoundor.sol#239)
    - BalanceAdded(account,token,amount) (contracts/Compoundor.sol#343)
        - _increaseBalance(owner(),state.token1,protocolFees1) (contracts/
Compoundor.sol#241)
    - BalanceAdded(account,token,amount) (contracts/Compoundor.sol#343)
```

```
        - _increaseBalance(owner(),state.token0,protocolFees0) (contracts/
Compoundor.sol#240)
    - BalanceAdded(account,token,amount.sub(currentBalance)) (contracts/
Compoundor.sol#351)
        - _setBalance(state.tokenOwner,state.token0,state.amount0.sub(compo
unded0).sub(state.amount0Fees)) (contracts/Compoundor.sol#223)
    - BalanceAdded(account,token,amount.sub(currentBalance)) (contracts/
Compoundor.sol#351)
        - _setBalance(state.tokenOwner,state.token1,state.amount1.sub(compo
unded1).sub(state.amount1Fees)) (contracts/Compoundor.sol#224)
    - BalanceRemoved(account,token,currentBalance.sub(amount)) (contracts/
Compoundor.sol#354)
        - _setBalance(state.tokenOwner,state.token1,state.amount1.sub(compo
unded1).sub(state.amount1Fees)) (contracts/Compoundor.sol#224)
    - BalanceRemoved(account,token,currentBalance.sub(amount)) (contracts/
Compoundor.sol#354)
        - _setBalance(state.tokenOwner,state.token0,state.amount0.sub(compo
unded0).sub(state.amount0Fees)) (contracts/Compoundor.sol#223)
Reentrancy in Compoundor.autoCompound(ICompoundor.AutoCompoundParams)
(contracts/Compoundor.sol#137-250):
    External calls:
    - (state.amount0,state.amount1) = nonfungiblePositionManager.collect(INonfungi
blePositionManager.CollectParams(params.tokenId,address(this),type()(uint128).max,type()
(uint128).max)) (contracts/Compoundor.sol#148-150)
    - (state.amount0,state.amount1,state.priceX96,state.maxAddAmount0,state.max
AddAmount1) = _swapToPriceRatio(swapParams) (contracts/Compoundor.sol#180-181)
        - amountOut = swapRouter.exactInput(ISwapRouter.ExactInputParams(s
wapPath,address(this),deadline,amount,0)) (contracts/Compoundor.sol#617-619)
    - (None,compounded0,compounded1) = nonfungiblePositionManager.increaseLiq
uidity(INonfungiblePositionManager.IncreaseLiquidityParams(params.tokenId,state.maxAdd
Amount0,state.maxAddAmount1,0,0,block.timestamp)) (contracts/
Compoundor.sol#185-194)
    - _withdrawFullBalances(state.token0,state.token1,msg.sender) (contracts/
Compoundor.sol#246)
        - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
        - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
        - (success,returndata) = target.call{value: value}(data)
```

```
(contracts/external/openzeppelin/utils/Address.sol#119)
	External calls sending eth:
	- _withdrawFullBalances(state.token0,state.token1,msg.sender) (contracts/
Compoundor.sol#246)
		- (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
	Event emitted after the call(s):
	- AutoCompounded(msg.sender,params.tokenId,compounded0,compounded1,rew
ard0,reward1,state.token0,state.token1) (contracts/Compoundor.sol#249)
	- BalanceRemoved(msg.sender,token,amount) (contracts/Compoundor.sol#372)
		- _withdrawFullBalances(state.token0,state.token1,msg.sender)
(contracts/Compoundor.sol#246)
	- BalanceWithdrawn(msg.sender,token,to,amount) (contracts/
Compoundor.sol#374)
		- _withdrawFullBalances(state.token0,state.token1,msg.sender)
(contracts/Compoundor.sol#246)
Reentrancy in Compoundor.onERC721Received(address,address,uint256,bytes)
(contracts/Compoundor.sol#90-101):
	External calls:
	- _addToken(tokenId,from) (contracts/Compoundor.sol#98)
		- returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
		-
SafeERC20.safeApprove(token0,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#394)
		- SafeERC20.safeApprove(token0,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#395)
		- (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
		-
SafeERC20.safeApprove(token1,address(nonfungiblePositionManager),type()
(uint256).max) (contracts/Compoundor.sol#399)
		- SafeERC20.safeApprove(token1,address(swapRouter),type()
(uint256).max) (contracts/Compoundor.sol#400)
	External calls sending eth:
	- _addToken(tokenId,from) (contracts/Compoundor.sol#98)
		- (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
	Event emitted after the call(s):
```

```
        - TokenDeposited(from,tokenId) (contracts/Compoundor.sol#99)
Reentrancy in Compoundor.withdrawToken(uint256,address,bool,bytes) (contracts/
Compoundor.sol#310-327):
        External calls:
        - nonfungiblePositionManager.safeTransferFrom(address(this),to,tokenId,data)
(contracts/Compoundor.sol#320)
        Event emitted after the call(s):
        - TokenWithdrawn(msg.sender,to,tokenId) (contracts/Compoundor.sol#321)
Reentrancy in Compoundor.withdrawToken(uint256,address,bool,bytes) (contracts/
Compoundor.sol#310-327):
        External calls:
        - nonfungiblePositionManager.safeTransferFrom(address(this),to,tokenId,data)
(contracts/Compoundor.sol#320)
        - _withdrawFullBalances(token0,token1,to) (contracts/Compoundor.sol#325)
            - returndata = address(token).functionCall(data,SafeERC20: low-
level call failed) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#69)
            - SafeERC20.safeTransfer(IERC20(token),to,amount) (contracts/
Compoundor.sol#373)
            - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
        External calls sending eth:
        - _withdrawFullBalances(token0,token1,to) (contracts/Compoundor.sol#325)
            - (success,returndata) = target.call{value: value}(data)
(contracts/external/openzeppelin/utils/Address.sol#119)
        Event emitted after the call(s):
        - BalanceRemoved(msg.sender,token,amount) (contracts/Compoundor.sol#372)
            - _withdrawFullBalances(token0,token1,to) (contracts/
Compoundor.sol#325)
        - BalanceWithdrawn(msg.sender,token,to,amount) (contracts/
Compoundor.sol#374)
            - _withdrawFullBalances(token0,token1,to) (contracts/
Compoundor.sol#325)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-
vulnerabilities-3

Compoundor.autoCompound(ICompoundor.AutoCompoundParams) (contracts/
Compoundor.sol#137-250) uses timestamp for comparisons
        Dangerous comparisons:
        - state.amount0Fees > state.amount0.sub(compounded0) (contracts/
Compoundor.sol#209)
```

```
	- state.amount1Fees > state.amount1.sub(compounded1) (contracts/
Compoundor.sol#215)
	- state.tokenOwner == msg.sender (contracts/Compoundor.sol#227)
Compoundor._setBalance(address,address,uint256) (contracts/
Compoundor.sol#346-356) uses timestamp for comparisons
	Dangerous comparisons:
	- amount > currentBalance (contracts/Compoundor.sol#349)
	- amount < currentBalance (contracts/Compoundor.sol#352)
Compoundor._requireMaxTickDifference(int24,int24,uint32) (contracts/
Compoundor.sol#437-441) uses timestamp for comparisons
	Dangerous comparisons:
	- require(bool,string)(other > tick && (uint48(other - tick) < maxDifference) ||
other <= tick && (uint48(tick - other) < maxDifference),price err) (contracts/
Compoundor.sol#438-440)
Compoundor._swapToPriceRatio(Compoundor.SwapParams) (contracts/
Compoundor.sol#476-613) uses timestamp for comparisons
	Dangerous comparisons:
	- state.positionAmount0 == 0 (contracts/Compoundor.sol#519)
	- state.positionAmount1 == 0 (contracts/Compoundor.sol#522)
	- state.sell0 = (state.amountRatioX96.mul(amount1) < amount0.mul(Q96))
(contracts/Compoundor.sol#527)
	- params.bc == RewardConversion.TOKEN_0 (contracts/Compoundor.sol#537)
	- state.delta0 >= state.totalReward0 (contracts/Compoundor.sol#540)
	- state.delta0 > amount1.mul(Q96).div(priceX96) (contracts/
Compoundor.sol#548)
	- params.bc == RewardConversion.TOKEN_1 (contracts/Compoundor.sol#552)
	- state.delta0 >= state.totalReward0 (contracts/Compoundor.sol#555)
	- state.delta0 > amount0 (contracts/Compoundor.sol#563)
	- state.delta0 > 0 (contracts/Compoundor.sol#570)
	- state.delta1 > 0 (contracts/Compoundor.sol#582)
	- params.bc == RewardConversion.TOKEN_0 (contracts/Compoundor.sol#591)
	- params.bc == RewardConversion.TOKEN_1 (contracts/Compoundor.sol#593)
	- params.bc == RewardConversion.NONE (contracts/Compoundor.sol#605)
	- amount0 > state.rewardAmount0 (contracts/Compoundor.sol#609)
	- amount1 > state.rewardAmount1 (contracts/Compoundor.sol#610)
Compoundor._swap(bytes,uint256,uint256) (contracts/Compoundor.sol#615-621) uses
timestamp for comparisons
	Dangerous comparisons:
	- amount > 0 (contracts/Compoundor.sol#616)
```

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Address.isContract(address) (contracts/external/openzeppelin/utils/Address.sol#26-35) uses assembly
- INLINE ASM (contracts/external/openzeppelin/utils/Address.sol#33)

Address._verifyCallResult(bool,bytes,string) (contracts/external/openzeppelin/utils/Address.sol#171-188) uses assembly
- INLINE ASM (contracts/external/openzeppelin/utils/Address.sol#180-183)

FullMath.mulDiv(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#14-106) uses assembly
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#26-30)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#35-37)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#52-54)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#56-59)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#66-68)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#71-73)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/FullMath.sol#77-79)

TickMath.getTickAtSqrtRatio(uint160) (contracts/external/uniswap/v3-core/libraries/TickMath.sol#61-204) uses assembly
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#69-73)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#74-78)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#79-83)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#84-88)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#89-93)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#94-98)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#99-103)

- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#104-107)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#114-119)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#120-125)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#126-131)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#132-137)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#138-143)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#144-149)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#150-155)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#156-161)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#162-167)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#168-173)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#174-179)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#180-185)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#186-191)
- INLINE ASM (contracts/external/uniswap/v3-core/libraries/TickMath.sol#192-196)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different versions of Solidity are used:
- Version used: ['>=0.4.0', '>=0.4.0<0.8.0', '>=0.5.0', '>=0.5.0<0.8.0', '>=0.6.0<0.8.0', '>=0.7.5', ' 0.7.0', ' 0.7.6']
- 0.7.6 (contracts/Compoundor.sol#2)
- v2 (contracts/Compoundor.sol#3)
- 0.7.6 (contracts/ICompoundor.sol#2)
- v2 (contracts/ICompoundor.sol#3)

- 0.7.0 (contracts/external/openzeppelin/access/Ownable.sol#3)
- 0.7.0 (contracts/external/openzeppelin/introspection/IERC165.sol#3)
- 0.7.0 (contracts/external/openzeppelin/math/SafeMath.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC20/IERC20.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC20/IERC20Metadata.sol#4)
- 0.7.0 (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Enumerable.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Metadata.sol#3)
- 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Receiver.sol#3)
- 0.7.0 (contracts/external/openzeppelin/utils/Address.sol#3)
- >=0.6.0<0.8.0 (contracts/external/openzeppelin/utils/Context.sol#3)
- 0.7.0 (contracts/external/openzeppelin/utils/Multicall.sol#3)
- v2 (contracts/external/openzeppelin/utils/Multicall.sol#4)
- 0.7.0 (contracts/external/openzeppelin/utils/ReentrancyGuard.sol#3)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/IUniswapV3Factory.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/IUniswapV3Pool.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/callback/IUniswapV3SwapCallback.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolDerivedState.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolEvents.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolImmutables.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#2)
- >=0.4.0 (contracts/external/uniswap/v3-core/libraries/FixedPoint96.sol#2)
- >=0.4.0<0.8.0 (contracts/external/uniswap/v3-core/libraries/FullMath.sol#2)
- >=0.5.0<0.8.0 (contracts/external/uniswap/v3-core/libraries/TickMath.sol#2)

- >=0.7.5 (contracts/external/uniswap/v3-periphery/interfaces/IERC721Permit.sol#2)
- >=0.7.5 (contracts/external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#2)
- v2 (contracts/external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#3)
- >=0.5.0 (contracts/external/uniswap/v3-periphery/interfaces/IPeripheryImmutableState.sol#2)
- >=0.7.5 (contracts/external/uniswap/v3-periphery/interfaces/IPeripheryPayments.sol#2)
- >=0.7.5 (contracts/external/uniswap/v3-periphery/interfaces/IPoolInitializer.sol#2)
- v2 (contracts/external/uniswap/v3-periphery/interfaces/IPoolInitializer.sol#3)
- >=0.7.5 (contracts/external/uniswap/v3-periphery/interfaces/ISwapRouter.sol#2)
- v2 (contracts/external/uniswap/v3-periphery/interfaces/ISwapRouter.sol#3)
- >=0.5.0 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#2)
- >=0.5.0 (contracts/external/uniswap/v3-periphery/libraries/PoolAddress.sol#2)

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Address.functionCall(address,bytes) (contracts/external/openzeppelin/utils/Address.sol#79-81) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (contracts/external/openzeppelin/utils/Address.sol#104-106) is never used and should be removed
Address.functionStaticCall(address,bytes) (contracts/external/openzeppelin/utils/Address.sol#129-131) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (contracts/external/openzeppelin/utils/Address.sol#139-145) is never used and should be removed
Address.sendValue(address,uint256) (contracts/external/openzeppelin/utils/Address.sol#53-59) is never used and should be removed
Context._msgData() (contracts/external/openzeppelin/utils/Context.sol#20-23) is never used and should be removed
FullMath.mulDivRoundingUp(uint256,uint256,uint256) (contracts/external/uniswap/v3-core/libraries/FullMath.sol#113-123) is never used and should be removed
LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256) (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#23-31) is never used and should be removed

LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256) (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#39-46) is never used and should be removed
LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256) (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#56-75) is never used and should be removed
PoolAddress.computeAddress(address,PoolAddress.PoolKey) (contracts/external/uniswap/v3-periphery/libraries/PoolAddress.sol#33-49) is never used and should be removed
PoolAddress.getPoolKey(address,address,uint24) (contracts/external/uniswap/v3-periphery/libraries/PoolAddress.sol#20-27) is never used and should be removed
SafeERC20.safeDecreaseAllowance(IERC20,address,uint256) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#53-56) is never used and should be removed
SafeERC20.safeIncreaseAllowance(IERC20,address,uint256) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#48-51) is never used and should be removed
SafeERC20.safeTransferFrom(IERC20,address,address,uint256) (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#26-28) is never used and should be removed
SafeMath.div(uint256,uint256,string) (contracts/external/openzeppelin/math/SafeMath.sol#194-201) is never used and should be removed
SafeMath.mod(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#152-155) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (contracts/external/openzeppelin/math/SafeMath.sol#218-225) is never used and should be removed
SafeMath.sub(uint256,uint256,string) (contracts/external/openzeppelin/math/SafeMath.sol#170-177) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#24-28) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#60-63) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#70-73) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#45-53) is never used and should be removed
SafeMath.trySub(uint256,uint256) (contracts/external/openzeppelin/math/SafeMath.sol#35-38) is never used and should be removed
TickMath.getTickAtSqrtRatio(uint160) (contracts/external/uniswap/v3-core/libraries/TickMath.sol#61-204) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/IERC20Minimal.sol#2) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Pragma version 0.7.0 (contracts/external/openzeppelin/access/Ownable.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/introspection/IERC165.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/math/SafeMath.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC20/IERC20.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC20/IERC20Metadata.sol#4) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC20/SafeERC20.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Enumerable.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Metadata.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/token/ERC721/IERC721Receiver.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/utils/Address.sol#3) allows old versions
Pragma version>=0.6.0<0.8.0 (contracts/external/openzeppelin/utils/Context.sol#3) is too complex
Pragma version 0.7.0 (contracts/external/openzeppelin/utils/Multicall.sol#3) allows old versions
Pragma version 0.7.0 (contracts/external/openzeppelin/utils/ReentrancyGuard.sol#3) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/IUniswapV3Factory.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/IUniswapV3Pool.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/callback/IUniswapV3SwapCallback.sol#2) allows old versions

Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolDerivedState.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolEvents.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolImmutables.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#2) allows old versions
Pragma version>=0.4.0 (contracts/external/uniswap/v3-core/libraries/FixedPoint96.sol#2) allows old versions
Pragma version>=0.4.0<0.8.0 (contracts/external/uniswap/v3-core/libraries/FullMath.sol#2) is too complex
Pragma version>=0.5.0<0.8.0 (contracts/external/uniswap/v3-core/libraries/TickMath.sol#2) is too complex
Pragma version>=0.5.0 (contracts/external/uniswap/v3-periphery/interfaces/IPeripheryImmutableState.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#2) allows old versions
Pragma version>=0.5.0 (contracts/external/uniswap/v3-periphery/libraries/PoolAddress.sol#2) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in Address.sendValue(address,uint256) (contracts/external/openzeppelin/utils/Address.sol#53-59):
- (success) = recipient.call{value: amount}() (contracts/external/openzeppelin/utils/Address.sol#57)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (contracts/external/openzeppelin/utils/Address.sol#114-121):
- (success,returndata) = target.call{value: value}(data) (contracts/external/openzeppelin/utils/Address.sol#119)
Low level call in Address.functionStaticCall(address,bytes,string) (contracts/external/openzeppelin/utils/Address.sol#139-145):
- (success,returndata) = target.staticcall(data) (contracts/external/openzeppelin/utils/Address.sol#143)

Low level call in Address.functionDelegateCall(address,bytes,string) (contracts/external/openzeppelin/utils/Address.sol#163-169):
- (success,returndata) = target.delegatecall(data) (contracts/external/openzeppelin/utils/Address.sol#167)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Parameter Compoundor.setReward(uint64,uint64)._totalRewardX64 (contracts/Compoundor.sol#69) is not in mixedCase
Parameter Compoundor.setReward(uint64,uint64)._compounderRewardX64 (contracts/Compoundor.sol#69) is not in mixedCase
Parameter Compoundor.setTWAPConfig(uint32,uint32)._maxTWAPTickDifference (contracts/Compoundor.sol#81) is not in mixedCase
Parameter Compoundor.setTWAPConfig(uint32,uint32)._TWAPSeconds (contracts/Compoundor.sol#81) is not in mixedCase
Variable Compoundor.TWAPSeconds (contracts/Compoundor.sol#43) is not in mixedCase
Function ICompoundor.TWAPSeconds() (contracts/ICompoundor.sol#68) is not in mixedCase
Parameter ICompoundor.setTWAPConfig(uint32,uint32)._TWAPSeconds (contracts/ICompoundor.sol#82) is not in mixedCase
Function IERC721Permit.PERMIT_TYPEHASH() (contracts/external/uniswap/v3-periphery/interfaces/IERC721Permit.sol#11) is not in mixedCase
Function IERC721Permit.DOMAIN_SEPARATOR() (contracts/external/uniswap/v3-periphery/interfaces/IERC721Permit.sol#15) is not in mixedCase
Function IPeripheryImmutableState.WETH9() (contracts/external/uniswap/v3-periphery/interfaces/IPeripheryImmutableState.sol#11) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (contracts/external/openzeppelin/utils/Context.sol#21)" inContext (contracts/external/openzeppelin/utils/Context.sol#15-25)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

Variable Compoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded0 (contracts/Compoundor.sol#141) is too similar to ICompoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded1 (contracts/ICompoundor.sol#153)

Variable Compoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded0 (contracts/Compoundor.sol#141) is too similar to Compoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded1 (contracts/Compoundor.sol#141)
Variable ICompoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded0 (contracts/ICompoundor.sol#153) is too similar to ICompoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded1 (contracts/ICompoundor.sol#153)
Variable ICompoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded0 (contracts/ICompoundor.sol#153) is too similar to Compoundor.autoCompound(ICompoundor.AutoCompoundParams).compounded1 (contracts/Compoundor.sol#141)
Variable Compoundor._swapToPriceRatio(Compoundor.SwapParams).maxAddAmount0 (contracts/Compoundor.sol#478) is too similar to Compoundor._swapToPriceRatio(Compoundor.SwapParams).maxAddAmount1 (contracts/Compoundor.sol#478)
Variable Compoundor.autoCompound(ICompoundor.AutoCompoundParams).protocolFees0 (contracts/Compoundor.sol#232) is too similar to Compoundor.autoCompound(ICompoundor.AutoCompoundParams).protocolFees1 (contracts/Compoundor.sol#233)
Variable IUniswapV3PoolOwnerActions.collectProtocol(address,uint128,uint128).amount0Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#20) is too similar to IUniswapV3PoolOwnerActions.collectProtocol(address,uint128,uint128).amount1Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#21)
Variable IUniswapV3PoolActions.collect(address,int24,int24,uint128,uint128).amount0Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#47) is too similar to IUniswapV3PoolOwnerActions.collectProtocol(address,uint128,uint128).amount1Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#21)
Variable IUniswapV3PoolActions.collect(address,int24,int24,uint128,uint128).amount0Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#47) is too similar to

IUniswapV3PoolActions.collect(address,int24,int24,uint128,uint128).amount1Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#48)
Variable IUniswapV3PoolOwnerActions.collectProtocol(address,uint128,uint128).amount0Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#20) is too similar to IUniswapV3PoolActions.collect(address,int24,int24,uint128,uint128).amount1Requested (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolActions.sol#48)
Variable IUniswapV3PoolState.positions(bytes32).feeGrowthInside0LastX128 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#93) is too similar to IUniswapV3PoolState.positions(bytes32).feeGrowthInside1LastX128 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#94)
Variable IUniswapV3PoolState.ticks(int24).feeGrowthOutside0X128 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#70) is too similar to IUniswapV3PoolState.ticks(int24).feeGrowthOutside1X128 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#71)
Variable IUniswapV3PoolOwnerActions.setFeeProtocol(uint8,uint8).feeProtocol0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#10) is too similar to IUniswapV3PoolOwnerActions.setFeeProtocol(uint8,uint8).feeProtocol1 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolOwnerActions.sol#10)
Variable IUniswapV3PoolState.positions(bytes32).tokensOwed0 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#95) is too similar to IUniswapV3PoolState.positions(bytes32).tokensOwed1 (contracts/external/uniswap/v3-core/interfaces/pool/IUniswapV3PoolState.sol#96)
Variable IUniswapV3SwapCallback.uniswapV3SwapCallback(int256,int256,bytes).amount0Delta (contracts/external/uniswap/v3-core/interfaces/callback/IUniswapV3SwapCallback.sol#17) is too similar to IUniswapV3SwapCallback.uniswapV3SwapCallback(int256,int256,bytes).amount1Delta (contracts/external/uniswap/v3-core/interfaces/callback/IUniswapV3SwapCallback.sol#18)
Variable INonfungiblePositionManager.positions(uint256).feeGrowthInside0LastX128 (contracts/external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#73) is too similar to INonfungiblePositionManager.positions(uint256).feeGrowthInside1LastX128 (contracts/external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#74)
Variable INonfungiblePositionManager.positions(uint256).tokensOwed0 (contracts/external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#75) is too similar to INonfungiblePositionManager.positions(uint256).tokensOwed1 (contracts/

external/uniswap/v3-periphery/interfaces/INonfungiblePositionManager.sol#76)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96

(contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to

LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#122) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to

LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#25)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#103) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Variable LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#40) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint2

56).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#59)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getLiquidityForAmounts(uint160,uint160,uint160,uint256,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#58) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getAmount1ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#104)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getLiquidityForAmount1(uint160,uint160,uint256).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#41)
Variable LiquidityAmounts.getLiquidityForAmount0(uint160,uint160,uint256).sqrtRatioAX96

(contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#24) is too similar to LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#84)
Variable LiquidityAmounts.getAmount0ForLiquidity(uint160,uint160,uint128).sqrtRatioAX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#83) is too similar to LiquidityAmounts.getAmountsForLiquidity(uint160,uint160,uint160,uint128).sqrtRatioBX96 (contracts/external/uniswap/v3-periphery/libraries/LiquidityAmounts.sol#123)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-are-too-similar

FixedPoint96.slitherConstructorConstantVariables() (contracts/external/uniswap/v3-core/libraries/FixedPoint96.sol#7-11) uses literals with too many digits:
- Q96 = 0x1000000000000000000000000 (contracts/external/uniswap/v3-core/libraries/FixedPoint96.sol#9)
TickMath.getSqrtRatioAtTick(int24) (contracts/external/uniswap/v3-core/libraries/TickMath.sol#23-54) uses literals with too many digits:
- ratio = 0x100000000000000000000000000000000 (contracts/external/uniswap/v3-core/libraries/TickMath.sol#27)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

renounceOwnership() should be declared external:
- Ownable.renounceOwnership() (contracts/external/openzeppelin/access/Ownable.sol#54-57)
transferOwnership(address) should be declared external:
- Ownable.transferOwnership(address) (contracts/external/openzeppelin/access/Ownable.sol#63-67)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

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