# Origami Security Review

Report Version 0.1

14.03.2025

Conducted by :

**Pyro**, Security Researcher

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# 1 About the auditor

Pyro is distinguished independent smart contract security researcher with robust track record. Over the past year, he has improved the security of many protocols, working both alone and with others. Previously with Guardian, Pyro has audited high-profile clients like Synthetix and GMX, earning him a reputation as a trusted blockchain security researcher. Learn more at https://github.com/0x3b33.

# 2 Disclaimer

Audits are a time, resource, and expertise-bound effort where trained experts evaluate smart contracts using a combination of automated and manual techniques to identify as many vulnerabilities as possible. Audits can reveal the presence of vulnerabilities **but cannot guarantee their absence**.

# 3 Risk classification

| Severity | Impact: High | Impact: Medium | Impact: Low |
|---|---|---|---|
| Likelihood: High | High | High | Medium |
| Likelihood: Medium | High | Medium | Low |
| Likelihood: Low | Medium | Low | Low |

## 3.1 Impact

- **High** - leads to a significant loss of assets in the protocol or significantly harms a group of users.
- **Medium** - involves a small loss of funds or affects a core functionality of the protocol.
- **Low** - encompasses any unexpected behavior that is non-critical.

## 3.2 Likelihood

- **High** - a direct attack vector; the cost is relatively low compared to the potential loss of funds.
- **Medium** - only a conditionally incentivized attack vector, with a moderate likelihood.
- **Low** - involves too many or unlikely assumptions; offers little to no incentive.

## 3.3 Actions required by severity level

- **High** - client **must** fix the issue.
- **Medium** - client **should** fix the issue.
- **Low** - client **could** fix the issue.

# 4  Executive summary

**Overview**

| Project Name | Origami |
|---|---|
| Repository | https://github.com/TempleDAO/origami |
| Commit hash | b6d8e012f8ba64cdf2d9da66820419b8dccf568d |
| Remediation | b6d8e012f8ba64cdf2d9da66820419b8dccf568d |
| Methods | Manual review |

**Timeline**

| v0.1 | 12.03.2025 | Audit kick-off |
|---|---|---|
| v0.1 | 14.03.2025 | Preliminary report |
| v1.0 | 14.03.2025 | Mitigation review |

**Scope**

| contracts/investments/infrared/OrigamiInfraredVaultManager.sol |
|---|
| contracts/common/swappers/OrigamiSwapperWithCallback.sol |

**Issues Found**

| High risk | 0 |
|---|---|
| Medium risk | 0 |
| Low risk | 0 |
| Informational | 0 |

# 5  System overview

The `OrigamiInfraredVaultManager` implements auto-compounding strategies for Infrared Vaults, and `OrigamiSwapperWithCallback` handles DEX swaps with post-swap callbacks for reward token conversion.  Both are in use by `OrigamiDelegated4626Vault`, which inherits the standart `OrigamiErc4626` vault.

In short it's an auto-compounding 4626 vault over Infrared Vaults.

# 6  Findings