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Ledger Innovation T<u>eam</u>

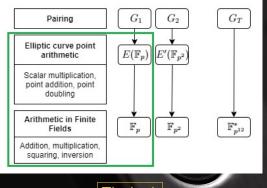
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Zero Kowledge Proofs

- Zero-knowledge proof is a method by which a prover can prove to a verifier that a given statement is true while the verifier doesn't learn information except the statement result.
- ZKP enable transaction hiding (Monero, ZCash), range proof, proof of membership, ZK-Rollups (Layer 2).
- Most of building blocks for Privacy-Preserving and ZKP rely on the use of Pairings over Elliptic curves (Zk-snarks, Commitments, Efficient signatures)
- Ledger direct examples: Linkable Signatures for Anonymous airdrop (device ID), Ring signature (endorsement), Strongly Verifiable SS (Protect), Decentralized Identifiers.





The hack

- Strip modular arithmetic from Open Source (blst library)
- Accelerate using bolos calls (available in green on figure)
- Push the result as a "Package" that external developpers can use for ZKP integration on Nano.
- Join slack #zero-knowledge



Questions?

