

## Basic Escrow.

In this study case, two actors are involved.

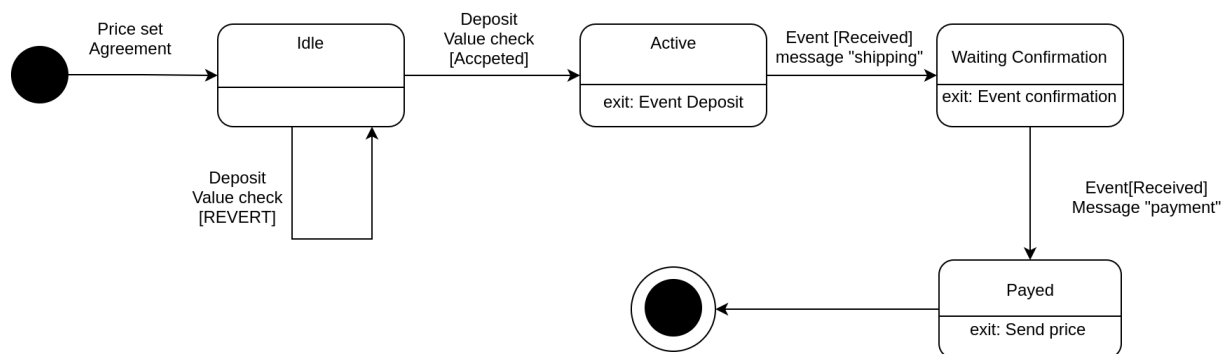
- The Buyer: is the person who wishes to purchase a product from the seller.
- The Seller: is the one who intends to earn from the sale.

A Smart Contract Escrow acts as a trusted intermediary to protect the buyer from the possible non-delivery of the purchased goods.

### Requirement

1. Agreement: the Seller and the Buyer agree on a price. Output: a smart contract Escrow has been deployed, setting the Buyer and Seller addresses in their respective roles, and a variable Price is set to the agreed value. The initial state of the SC is Idle.
2. Deposit: From the state Idle, the Buyer sends to the SC an amount of cryptocurrency equal to the value of Price. If the sent value is not equal, the smart contract reverts the operation. If it is equal, the SC passes to the state Active.
3. Shipping: as the SC is in the state of Active, the Seller acknowledges the Deposit and ships the goods. The seller sends the message "shipped" to the SC. It passes to the state of WaitingConfirmation.
4. Payment: From the state WaitingConfirmation, the Buyer gets the goods and sends a message "received" to the SC. The SC sends the amount of cryptocurrency to the Seller. As a result, the SC passes to the state of Payed.

### State diagram



## Sequence diagram

