

# cf) wrapper functions

execute2() / execute3() For those who don't feel comfortable writing all functions using execute directly, I've added some frequently used functions as execute2/3 functions via a helper facet. However, remember that stable pools have different addresses for gauge and pool, so you can't interact with gauge through this wrapper function.

You could see the actual implementation of execute2/3 wrapper [link here](#).

This example allows you to harvest, swap each tokens, add lp, and stake all in one transaction without deploying a separate contract.

```

```
Copy pragmasolidity^0.8.19;
```

```
import"src/lib/Token.sol"; import"src/interfaces/IVault.sol"; import"src/interfaces/IFactory.sol"; import"src/interfaces/IPool.sol";
```

```
contractExample{ usingTokenLibforToken;
```

```
IVault vault=IVault(0x1d0188c4B276A09366D05d6Be06aF61a73bC7535);
```

```
uint8constantSWAP=0; uint8constantGAUGE=1;
```

```
uint8constantEXACTLY=0; uint8constantAT_MOST=1; uint8constantALL=2;
```

```
functionrun()external{ addressusdc=0x176211869cA2b568f2A7D4EE941E073a821EE1ff;  
addressvc=0xcc22F6AA610D1b2a0e89EF228079cB3e1831b1D1; addresseth=address(0);  
addressusdc_eth_pool=vault.getPair(usdc,eth); addressusdc_eth_lp=usdc_eth_pool;
```

```
IERC20(0x176211869cA2b568f2A7D4EE941E073a821EE1ff).approve(address(vault),type(uint256).max); // you can  
optimize gas by batching operations. // this example will execute them separately for clarity
```

```
//swap usdc->eth vault.execute2( usdc_eth_pool,SWAP, usdc,EXACTLY,0.1e6, eth,AT_MOST,0, "" );
```

```
//add lp and stake vault.execute3{value:0.001e18}( usdc_eth_pool,SWAP, usdc,EXACTLY,0.1e6, eth,EXACTLY,0.001e18,  
usdc_eth_lp,AT_MOST,0, "" ); vault.execute2( usdc_eth_pool,GAUGE,  
usdc_eth_lp,EXACTLY,int128(int256(IERC20(usdc_eth_lp).balanceOf(address(this))))), vc,AT_MOST,0, "" );
```

```
address[]memorypath=newaddress; path[0]=usdc; path[1]=eth; path[2]=vc;
```

```
//you can also use uniswap-like interface vault.swapExactTokensForTokens(  
1e18,0.9e18,path,address(this),block.timestamp ); } }
```

```

``` Last updated4 months ago On this page