

How to Estimate the Gas Limits for a User Operation

Tip We recommend using [permissionless.js](#) to estimate user operations gas limits as it provides type-safe wrappers for all bundler methods.

To estimate the gas limits for a user operation, you need to use your [Pimlico API key](#) and make a JSON-RPC request as follows:

```
viem ethers v5 ethers v6 ```  
  
viem import{ createPublicClient, http }from"viem"  
  
constpimlicoApiKey="YOUR_PIMLICO_API_KEY_HERE" constchain="sepolia"// find the list of supported chains at  
https://docs.pimlico.io/bundler constpimlicoEndpoint=https://api.pimlico.io/v1{chain}/rpc?apikey={pimlicoApiKey}  
  
constuserOperation=... constentryPoint="0x5FF137D4b0FDCD49DcA30c7CF57E578a026d2789"  
  
constpimlicoClient=createPublicClient({ transport:http(pimlicoEndpoint) })  
constestimationResult=awaitpimlicoClient.request({ // @ts-ignore method:"eth_estimateUserOperationGas", params:  
[userOperation, entryPoint] })  
  
constpreVerificationGas=estimationResult.preVerificationGas  
constverificationGasLimit=estimationResult.verificationGasLimit constcallGasLimit=estimationResult.callGasLimit  
  
```
```