

Hello Lido!

If you are ready to explore further, the [Lido component](#) serves as an excellent fully-fledged example, as it demonstrates how to interact with a smart contract deployed on the Ethereum mainnet.

Ethers.js This component uses the [Ethers JavaScript](#) library to interact with Ethereum smart contracts. Follow [this link](#) for the official ethers.js documentation. Web3 connect The Lido example uses the [Web3Connect component](#) to provide a [WalletConnect modal](#) so the user can connect with any Web3 Ethereum wallet like Ledger or MetaMask.

Fork the component

1. Navigate to [the component](#)
2. Select Fork
3. Feel free to make any changes
4. Click on Save
5. to deploy the component

note To deploy the component, you'll need to sign in with a NEAR account and to make a deposit of a small amount of NEAR for the storage cost. This is because the components are stored in the NEAR network.

Source code

```
if
( state . chainId

===

undefined

&& ethers !==

undefined

&& Ethers . send ( "eth_requestAccounts" ,

[ ] ) [ 0 ] )

{ Ethers . provider ( ) . getNetwork ( ) . then ( ( chainIdData )

=>

{ if

( chainIdData ?. chainId )

{ State . update ( {

chainId : chainIdData . chainId

} ) ; } } ) ; } if

( state . chainId

!==

undefined

&& state . chainId

!==

1 )

{ return

< p

Switch to Ethereum

Mainnet < / p
```

```

    ; }

// FETCH LIDO ABI

const lidoContract =

"0xae7ab96520de3a18e5e111b5eaab095312d7fe84" ; const tokenDecimals =

18 ;

const lidoAbi =

fetch ( "https://raw.githubusercontent.com/lido-finance/lido-subgraph/master/abis/Lido.json" ) ; if

( ! lidoAbi . ok )

{ return

"Loading" ; }

const iface =

new

ethers . utils . Interface ( lidoAbi . body ) ;

// FETCH LIDO STAKING APR

if

( state . lidoArp

===

undefined )

{ const apr =

fetch ( "https://api.allorigins.win/get?url=https://stake.lido.fi/api/sma-steth-apr" ) ; if

( ! apr )

return ; State . update ( {

lidoArp :

JSON . parse ( apr ? . body ? . contents )

??

"..."

} ) ; }

// HELPER FUNCTIONS

const

getStakedBalance

=

( receiver )

=>

{ const encodedData = iface . encodeFunctionData ( "balanceOf" ,

[ receiver ] ) ;

return

Ethers . provider ( ) . call ( { to : lidoContract , data : encodedData , } ) . then ( ( rawBalance )

```

```

=>

{ const receiverBalanceHex = iface . decodeFunctionResult ( "balanceOf" , rawBalance ) ;

return

Big ( receiverBalanceHex . toString ( ) ) . div ( Big ( 10 ) . pow ( tokenDecimals ) ) . toFixed ( 2 ) . replace ( /\d {3} )
+ . ) / g ,

"&," ) ; } ) ; } ;

const

submitEthers

=

( strEther , _referral )

=>

{ if

( ! strEther )

{ return

console . log ( "Amount is missing" ) ; } const erc20 =

new

ethers . Contract ( lidoContract , lidoAbi . body , Ethers . provider ( ) . getSigner ( ) ) ;

let amount = ethers . utils . parseUnits ( strEther , tokenDecimals ) . toHexString ( ) ;

erc20 . submit ( lidoContract ,

{

value : amount } ) . then ( ( transactionHash )

=>

{ console . log ( "transactionHash is "

+ transactionHash ) ; } ) ; } ;

// DETECT SENDER

if

( state . sender

===

undefined )

{ const accounts =

Ethers . send ( "eth_requestAccounts" ,

[ ] ) ; if

( accounts . length )

{ State . update ( {

sender : accounts [ 0 ]

} ) ; console . log ( "set sender" , accounts [ 0 ] ) ; } }

//if (!state.sender) return "Please login first";

// FETCH SENDER BALANCE

```

```

if
( state . balance
===
undefined
&& state . sender )
{ Ethers . provider ( ) . getBalance ( state . sender ) . then ( ( balance )
=>
{ State . update ( {
balance :
Big ( balance ) . div ( Big ( 10 ) . pow ( 18 ) ) . toFixed ( 2 )
} ) ; } ) ; }
// FETCH SENDER STETH BALANCE
if
( state . stakedBalance
===
undefined
&& state . sender )
{ getStakedBalance ( state . sender ) . then ( ( stakedBalance )
=>
{ State . update ( { stakedBalance } ) ; } ) ; }
// FETCH TX COST
if
( state . txCost
===
undefined )
{ const gasEstimate = ethers . BigNumber . from ( 1875000 ) ; const gasPrice = ethers . BigNumber . from ( 1500000000 ) ;
const gasCostInWei = gasEstimate . mul ( gasPrice ) ; const gasCostInEth = ethers . utils . formatEther ( gasCostInWei ) ;
let responseGql =
fetch ( "https://api.thegraph.com/subgraphs/name/uniswap/uniswap-v2" , { method :
"POST" , headers :
{
"Content-Type" :
"application/json"
} , body :
JSON . stringify ( { query :
{ bundle(id: "1" ) { ethPrice } } , } ) , } ) ;
if

```

```

( ! responseGql )
return
"" ;

const ethPriceInUsd = responseGql . body . data . bundle . ethPrice ;

const txCost =
Number ( gasCostInEth )
*
Number ( ethPriceInUsd ) ;

State . update ( {
txCost :
、

{ txCost . toFixed ( 2 ) } `
} ) ; }

// FETCH CSS

const cssFont =
fetch ( "https://fonts.googleapis.com/css2?family=Manrope:wght@200;300;400;500;600;700;800" ) . body ; const css =
fetch ( "https://pluminite.mypinata.cloud/ipfs/Qmboz8aoSvVXLeP5pZbRtNKtDD3kX5D9DEnfMn2ZGSJWtP" ) . body ;

if
( ! cssFont ||
! css )
return
"" ;

if
( ! state . theme )

{ State . update ( { theme : styled . div`font-family : Manrope , -apple-system , BlinkMacSystemFont , Segoe UI , Roboto , Oxygen , Ubuntu ,
Cantarell , Fira Sans , Droid Sans , Helvetica Neue , sans-serif ; { cssFont } { css } , } ) ; } const

Theme

= state . theme ;

// OUTPUT UI

const

getSender

=

( )

=>

{ return

! state . sender ?

"" : state . sender . substring ( 0 ,

6 )

```

```

+ "..."
+ state . sender . substring ( state . sender . length
-
4 , state . sender . length ) ; } ;
return
( < Theme
    < div className = "LidoContainer"
    < div className = "Header"
    Stake
Ether < / div
    < div className = "SubHeader"
    Stake
ETH and receive stETH while staking . < / div
< div className = "LidoForm"
    { state . sender
&&
( <
    < div className = "LidoFormTopContainer"
    < div className = "LidoFormTopContainerLeft"
    < div className = "LidoFormTopContainerLeftContent1"
    < div className = "LidoFormTopContainerLeftContent1Container"
    < span
    Available to stake < / span
    < div className = "LidoFormTopContainerLeftContent1Circle"
/
    < / div
    < / div
    < div className = "LidoFormTopContainerLeftContent2"
    < span
    { state . balance
??
( ! state . sender
?
"0"
:
"..." ) } & nbsp ; ETH < / span
    < / div

```

```

    < / div

    < div className = "LidoFormTopContainerRight"

    < div className = "LidoFormTopContainerRightContent1"

    < div className = "LidoFormTopContainerRightContent1Text"

    < span

    { getSender ( ) } < / span

    < / div

    < / div

    < / div

    < / div

    < div className = "LidoSplitter"

/

    < /

    ) } < div className = { state . sender

?

"LidoFormBottomContainer"

:

"LidoFormTopContainer" }

    < div className = "LidoFormTopContainerLeft"

    < div className = "LidoFormTopContainerLeftContent1"

    < div className = "LidoFormTopContainerLeftContent1Container"

    < span

    Staked amount < / span

    < / div

    < / div

    < div className = "LidoFormTopContainerLeftContent2"

    < span

    { state . stakedBalance

??

( ! state . sender

?

"0"

:

"...") } & nbsp ; stETH < / span

    < / div

    < / div

    < div className = "LidoFormTopContainerRight"

```

```

    < div className = "LidoAprContainer"

    < div className = "LidoAprTitle"

    Lido
APR < / div

    < div className = "LidoAprValue"

    { state . lidoArp

??

"... " } % < / div

    < / div

    < / div

    < / div

    < / div

    < div className = "LidoStakeForm"

    < div className = "LidoStakeFormInputContainer"

    < span className = "LidoStakeFormInputContainerSpan1"

    < svg width = "24" height = "24" viewBox = "0 0 24 24" fill = "currentColor"

    < path opacity = "0.6" d = "M11.999 3.75v6.098l5.248 2.303-5.248-8.401z"

    < / path

    < path d = "M11.999 3.75L6.75 12.151l5.249-2.303V3.75z"

    < / path

    < path opacity = "0.6" d = "M11.999 16.103v4.143l5.251-7.135L12 16.103z"

    < / path

    < path d = "M11.999 20.246v-4.144L6.75 13.111l5.249 7.135z"

    < / path

    < path opacity = "0.2" d = "M11.999 15.144l5.248-2.993-5.248-2.301v5.294z"

    < / path

    < path opacity = "0.6" d = "M6.75 12.151l5.249 2.993V9.85l-5.249 2.3z"

    < / path

    < / svg

    < / span

    < span className = "LidoStakeFormInputContainerSpan2"

    < input disabled = { ! state . sender } className = "LidoStakeFormInputContainerSpan2Input" value = { state .
    strEther } onChange = { ( e )

=>

State . update ( {

strEther : e . target . value

} ) } placeholder = "Amount" /

    < / span

```



```

    < span className = "LidoStakeFormInputContainerSpan3" onClick = { ( )
=>
{ State . update ( { strEther :
( state . balance
0.05 ?
parseFloat ( state . balance )
-
0.05 :
0 ) . toFixed ( 2 ) , } ) ; } }
    < button className = "LidoStakeFormInputContainerSpan3Content" disabled = { ! state . sender }
    < span className = "LidoStakeFormInputContainerSpan3Max"
    MAX < / span
    < / button
    < / span
    < / div
    { ! ! state . sender
?
( < button className = "LidoStakeFormSubmitContainer" onClick = { ( )
=>
submitEthers ( state . strEther , state . sender ) }
    < span
    Submit < / span
    < / button
    )
:
( < Web3Connect className = "LidoStakeFormSubmitContainer" connectLabel = "Connect with Web3" /
    ) }
< div className = "LidoFooterContainer"
    { state . sender
&&
( < div className = "LidoFooterRaw"
    < div className = "LidoFooterRawLeft"
    You will receive < / div
    < div className = "LidoFooterRawRight"
{ state . strEther
??
0 } stETH < / div

```

```

    < / div
  ) } < div className = "LidoFooterRaw"
    < div className = "LidoFooterRawLeft"
      Exchange rate < / div
    < div className = "LidoFooterRawRight"
      1
    ETH
    =
    1 stETH < / div
    < / div
    { false
  &&
  ( < div className = "LidoFooterRaw"
    < div className = "LidoFooterRawLeft"
      Transaction cost < / div
    < div className = "LidoFooterRawRight"
      { state . txCost } < / div
    < / div
  ) } < div className = "LidoFooterRaw"
    < div className = "LidoFooterRawLeft"
      Reward fee < / div
    < div className = "LidoFooterRawRight"
      10 % < / div
    < / div
    < / div
    < / div
    < / div
    < / Theme
  ) ;

```

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