# Tutorial 2 – Tasks

## Remix

* Visit the Remix online Solidity development environment at <https://remix.ethereum.org/>
* Remix can connect to any number of test, production and local blockchains for deploying contract.
* We want to connect our remix environment to the Sepolia Test Network.
* To achieve this, ensure you have completed the Metamask steps from Tutorial 1 as a prerequisite.
* On the “Deploy & Run” tab, select “Injected Provider - Metamask” as your environment.

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* From the web3 examples in the github repository, find the “basicContract” example.
* Open the solidity file and copy its contents.
* Create a new file in Remix “Counter.sol”

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* Go to the solidity compile tab and compile your contract

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* Now go to the “Deploy & Run Transactions” tab.
* Fill in the constructor parameters and hit “Transact” to deploy.
  + View the transaction that deployed your contract on etherscan. \*\* Take note of the contract address for the next section.
  + You can interact directly from Remix to increment and decrement the counter by running further transactions on the chain.

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* Take note of the ABI. You will use this interface definition later to make writing web3 code easier.

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## Read and Transact With Your Contract in Web3

* From the code repository go to the example “sendTransaction”
* Change the code to point to your new contract address, created in the previous section.
* Load a wallet that you previously created and has a SETH balance.
* Non state changing operations on your contract (“call()”) will be free, but state changing operations (“sendTransaction()”) will require a SETH fee (“gas”) to fund the write the to blockchain.
* Increment the counter using a transaction issued from your web3 code.
* Blocks are created on Sepolia every 12 seconds, so be patient for your transaction to mine.
* Use the “Inspect” feature of your browser by right clicking on the page and going to “Console” to view any transaction errors that might occur.
* Amend the example to print any exeptions on the screen using the “modal” in the code.
* Currently the code example only implements the “Increment” transaction call. Try also executing the “Decrement” transaction call from the code.

