

```

client.py

#!/usr/bin/env python3

"""Write 4 coils to True, wait 2s, write False and redo it."""

import time

from pyModbusTCP.client import ModbusClient

# init

c = ModbusClient(host='172.18.3.254', port=502, auto_open=True)

bit = True

# main loop

while True:

    # write 4 bits in modbus address 0 to 3

    print('write bits')

    print('-----\n')

    for ad in range(4):

        is_ok = c.write_single_coil(ad, bit)

        if is_ok:

            print('coil #0: write to %s' % (ad, bit))

        else:

            print('coil #0: unable to write %s' % (ad, bit))

    time.sleep(0.5)

    print("")

    time.sleep(1)

    # read 4 bits in modbus address 0 to 3

    print('read bits')

    print('-----\n')

    bits = c.read_coils(0, 4)

    if bits:

        print('coils #0 to 3: %s' % bits)

    else:

        print('coils #0 to 3: unable to read')

    # toggle

```

```
bit = not bit
```

```
# sleep 2s before next polling
```

```
print("")
```

```
time.sleep(2)
```

server.py

```
#!/usr/bin/env python3
```

```
"""
```

Modbus/TCP server

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```

Run this as root to listen on TCP privileged ports ( $\leq 1024$ ).

Add "--host 0.0.0.0" to listen on all available IPv4 addresses of the host.

```
$ sudo ./server.py --host 0.0.0.0
```

```
"""
```

```
import argparse
```

```
import logging
```

```
from pyModbusTCP.server import ModbusServer
```

```
# init logging
```

```
logging.basicConfig()
```

```
# parse args
```

```
parser = argparse.ArgumentParser()
```

```
parser.add_argument('-H', '--host', type=str, default='localhost', help='Host  
(default: localhost)')
```

```
parser.add_argument('-p', '--port', type=int, default=502, help='TCP port  
(default: 502)')
```

```
parser.add_argument('-d', '--debug', action='store_true', help='set debug mode')
```

```
args = parser.parse_args()
```

```
# logging setup
```

```
if args.debug:
```

```
logging.getLogger('pyModbusTCP.server').setLevel(logging.DEBUG)
```

```
# start modbus server
```

```
server = ModbusServer(host=args.host, port=args.port)
```

```
server.start()
```

Si tes 2 machines communiquent :

Tu peux copier le fichier depuis Ubuntu Desktop vers Ubuntu Server avec **scp** :

Depuis la machine Desktop :

```
scp server.py dnv@IP_DU_SERVEUR:/home/dnv/
```

Remplace `IP_DU_SERVEUR` par l'adresse IP de ta VM serveur.

