import socket

import requests

# Create a TCP/IP socket

sock = socket.socket(socket.AF\_INET, socket.SOCK\_STREAM)

# Bind the socket to the port

server\_address = ('', 80)

print(f'starting up on {server\_address}')

sock.bind(server\_address)

# Replace YOUR\_API\_KEY with your actual ThingSpeak API key

API\_KEY = '74TGOQPXXN3NGXQ1'

while True:

# Listen for incoming connections

sock.listen(1)

# Wait for a connection

print('waiting for a connection')

connection, client\_address = sock.accept()

try:

print(f'connection from {client\_address}')

print('VLSI Project Team Rostock')

print('message from esp32 connected to microblaze')

# Receive the data in small chunks and retransmit it

while True:

data = connection.recv(16)

# Convert the received data to a string and remove control characters and non-printable characters

str\_data = data.decode().replace('\x00', '').replace('\r', '').replace('\n', '')

# Print the received data

print(f'Received data: {str\_data}')

# Send the received data to Field 2 of a ThingSpeak channel

response = requests.post(f'https://api.thingspeak.com/update?api\_key={API\_KEY}&field2={str\_data}')

# Check the status code of the response

if response.status\_code == 200:

print('send to cloud ok')

# If there is no more data to be received, break out of the loop

if not data:

print('no more data from', client\_address)

break

finally:

# Clean up the connection

connection.close()

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