Temperature Indicator for Raspberry Pi Pico

Code:

from machine import Pin, ADC

import utime

# Initialize the onboard LED pin

led = Pin(25, Pin.OUT)

# Initialize the ADC for the temperature sensor

sensor\_temp = ADC(4)

conversion\_factor = 3.3 / (65535)

# Set a threshold temperature in Celsius

threshold\_temp = 25.0

def read\_temperature():

# Read the raw ADC value

reading = sensor\_temp.read\_u16() \* conversion\_factor

# Convert the raw value to temperature in Celsius

temperature = 27 - (reading - 0.706) / 0.001721

return temperature

while True:

temperature = read\_temperature()

print("Temperature: {:.2f}C".format(temperature))

if temperature > threshold\_temp:

# Blink rapidly if temperature is above the threshold

led.value(1)

utime.sleep(0.2)

led.value(0)

utime.sleep(0.2)

else:

# Blink slowly if temperature is below the threshold

led.value(1)

utime.sleep(1)

led.value(0)

utime.sleep(1)



