

The Education University of Hong Kong

2022-2023 Quality Education Fund Thematic Network - Tertiary Institutes

STEM Project Team

SCHOOL: LCK 荔枝角天主教小學

TOPIC: Water Temperature Sensor

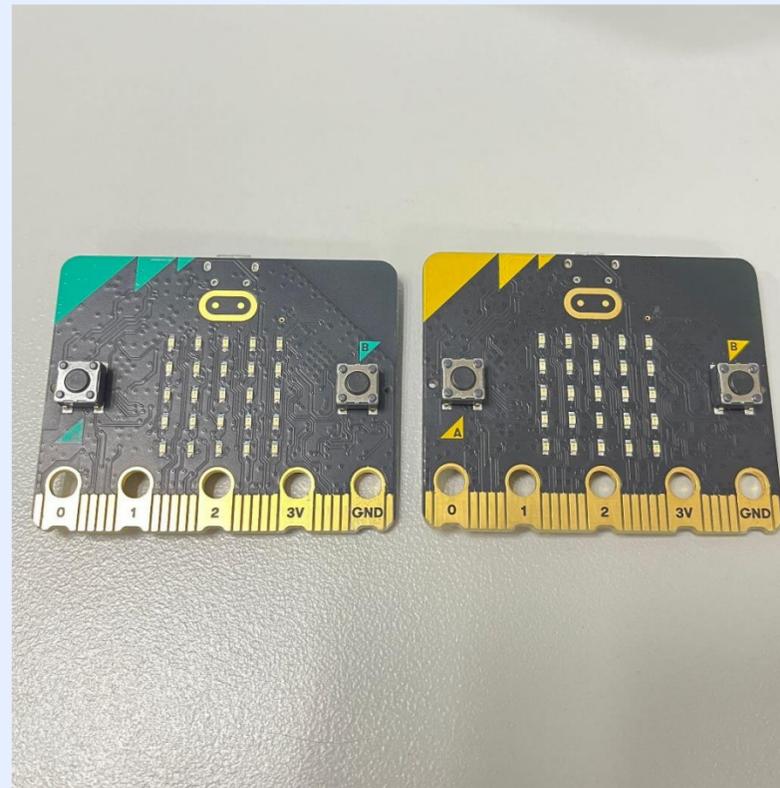
Objective

- To measure the water temperature with Micro:bit.
- To prevent the elderly from drinking water that is too hot.

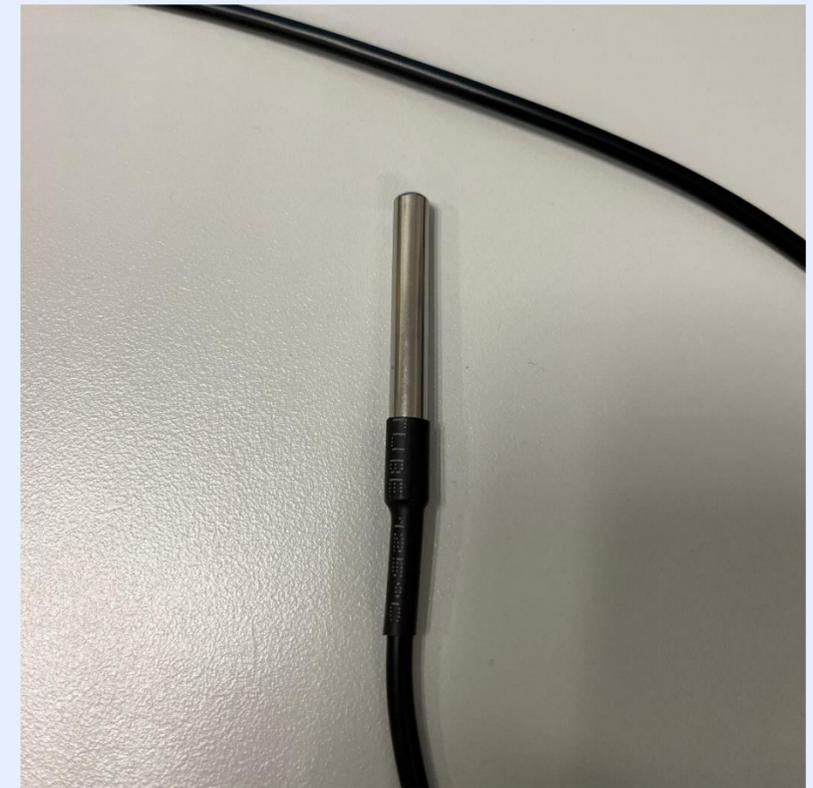
Materials



LED light

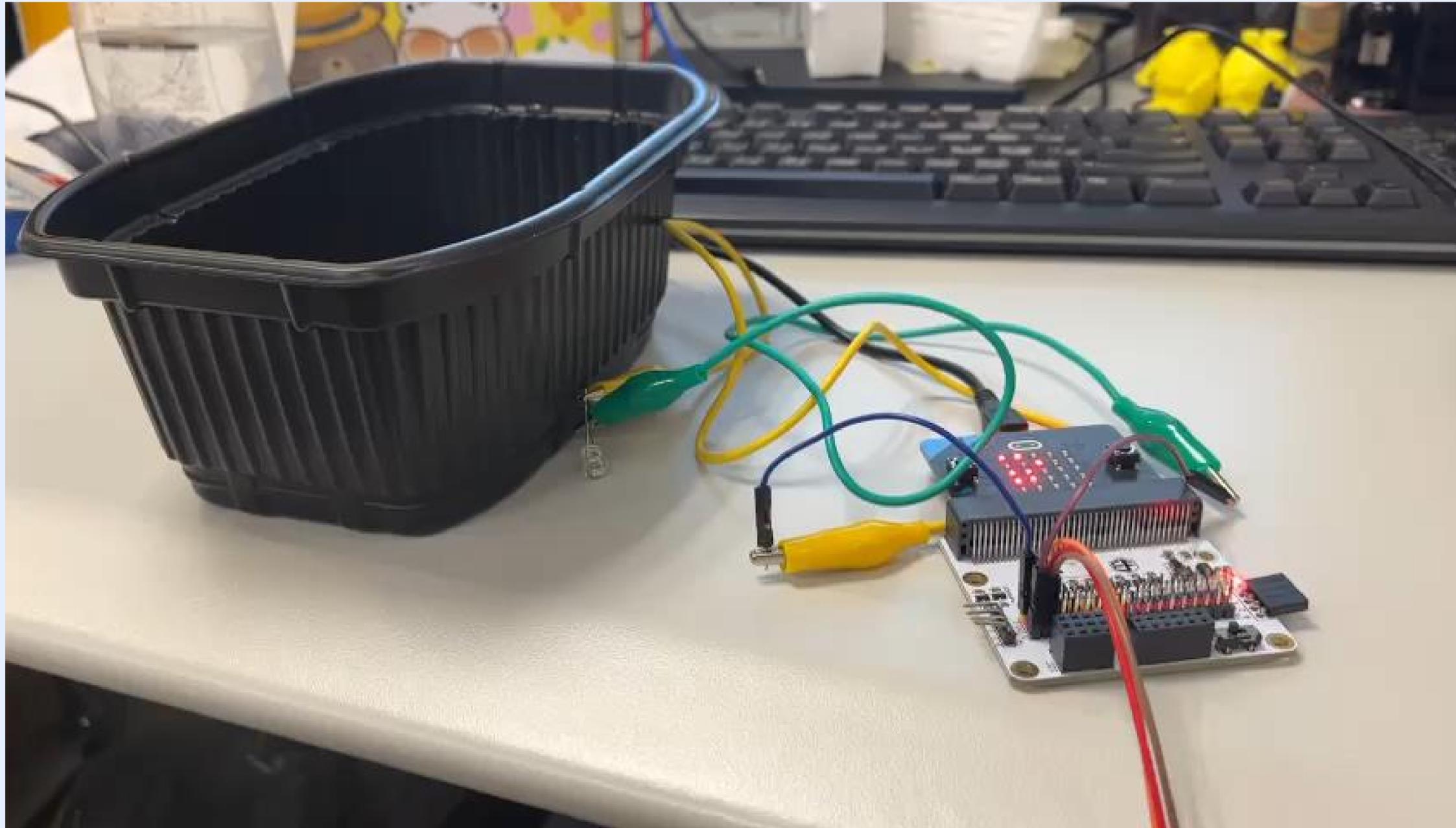


Micro:bit

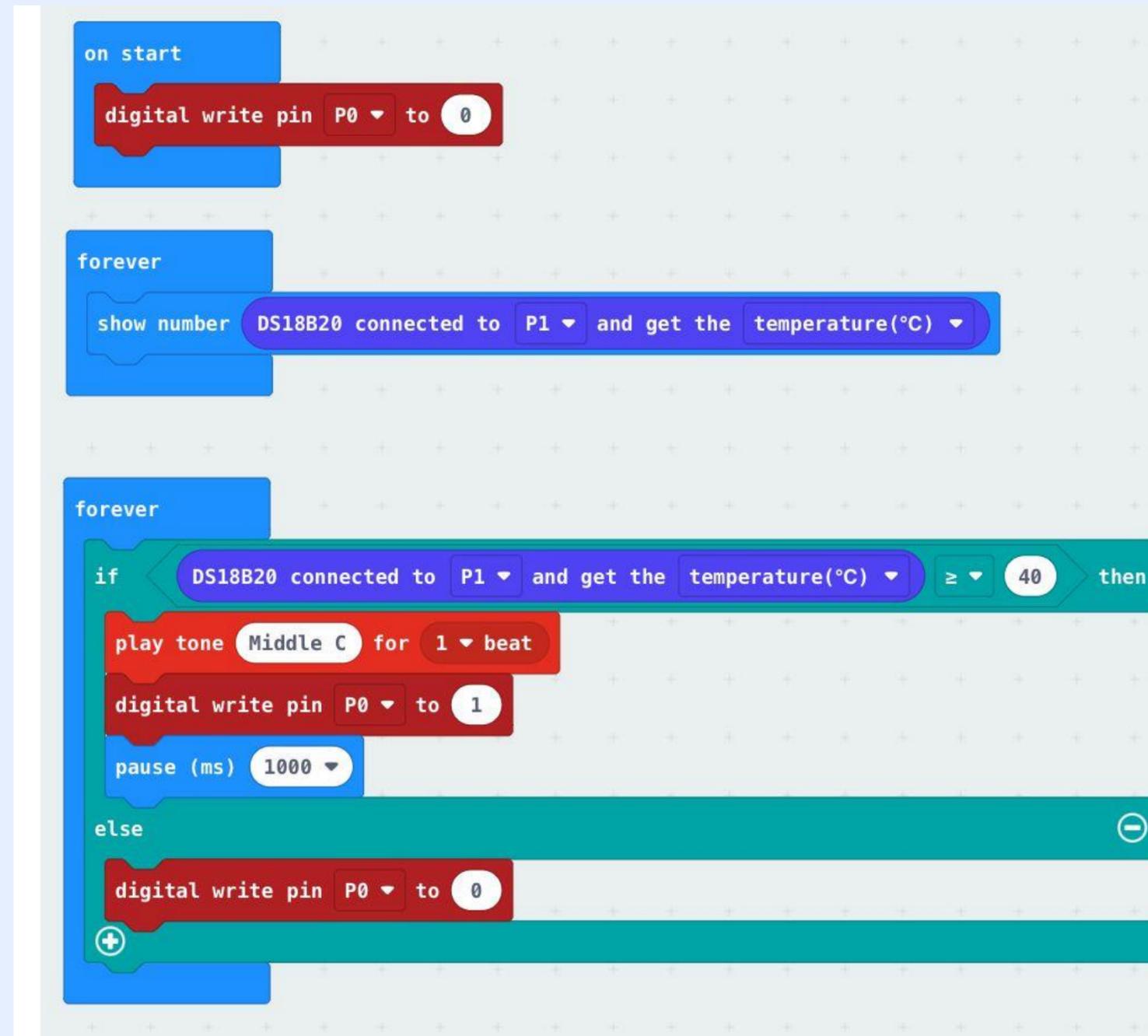


Water-proof
Temperature
Sensor

Video



Micro:bit Code



```
on start
  digital write pin P0 to 0

forever
  show number DS18B20 connected to P1 and get the temperature(°C)

forever
  if DS18B20 connected to P1 and get the temperature(°C) >= 40 then
    play tone Middle C for 1 beat
    digital write pin P0 to 1
    pause (ms) 1000
  else
    digital write pin P0 to 0
```

Water-proof Temperature Sensor with light bulb