

The Education University of Hong Kong

2022-2023 Quality Education Fund Thematic Network - Tertiary Institutes

STEM Project Team



SCHOOL: 荔枝角天主教小學 Laichikok Catholic Primary School



TOPIC: thermal paste test

Topic

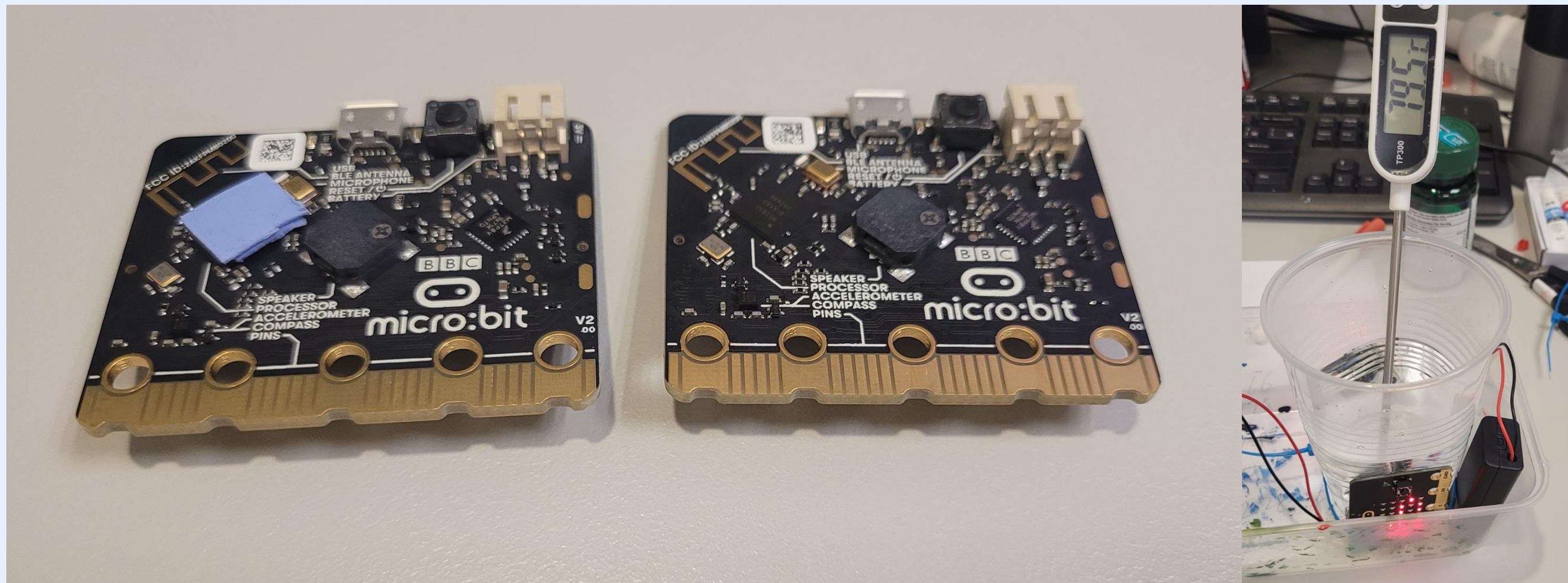
- Using thermal paste stickers to help heat transfer from the cup to the temperature sensor on Micro:bit

Experiment material

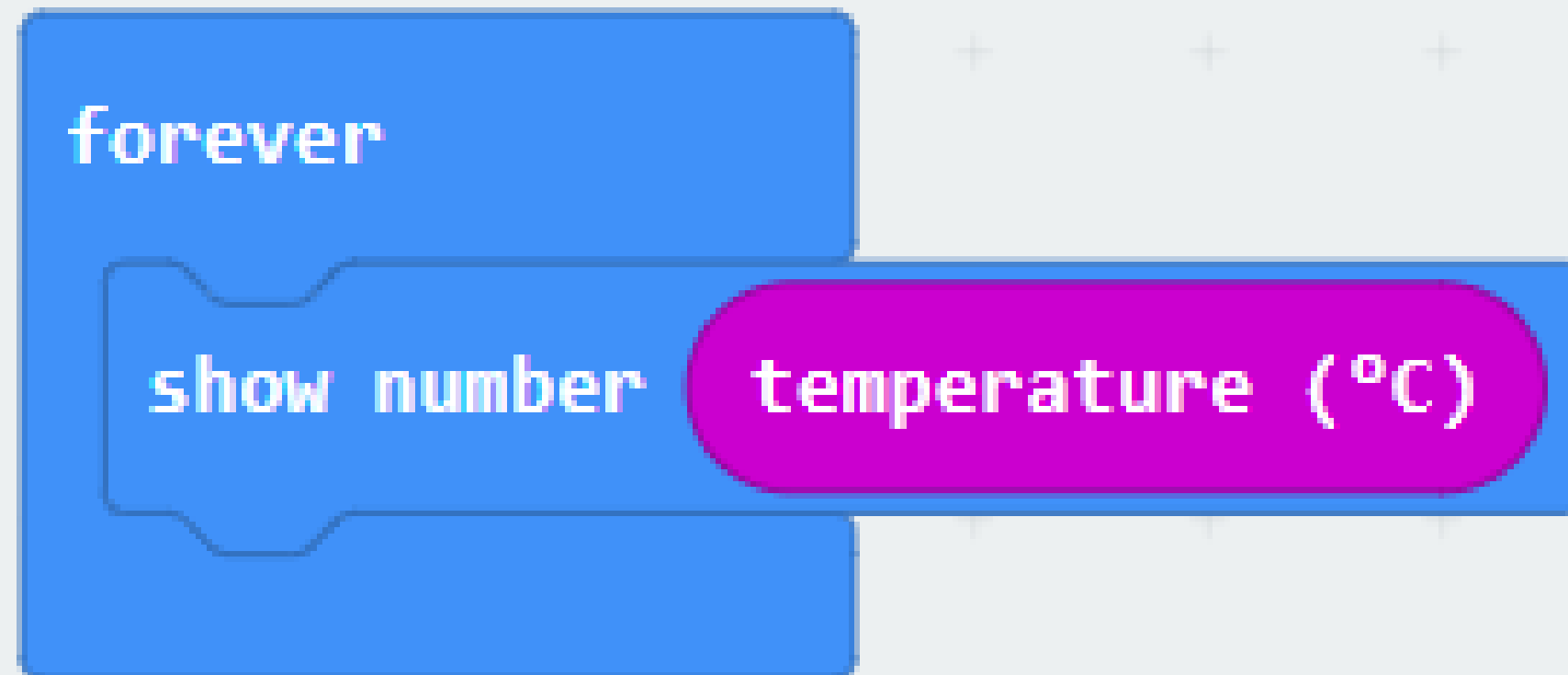
- Thermal paste stickers
- 2 Micro:bits

Objectives of Experiment

- To compare the temperature reading of 2 Micro:bits (one with 3 layers of thermal paste stickers and another without any thermal paste) with the electronic thermometer.



Coding

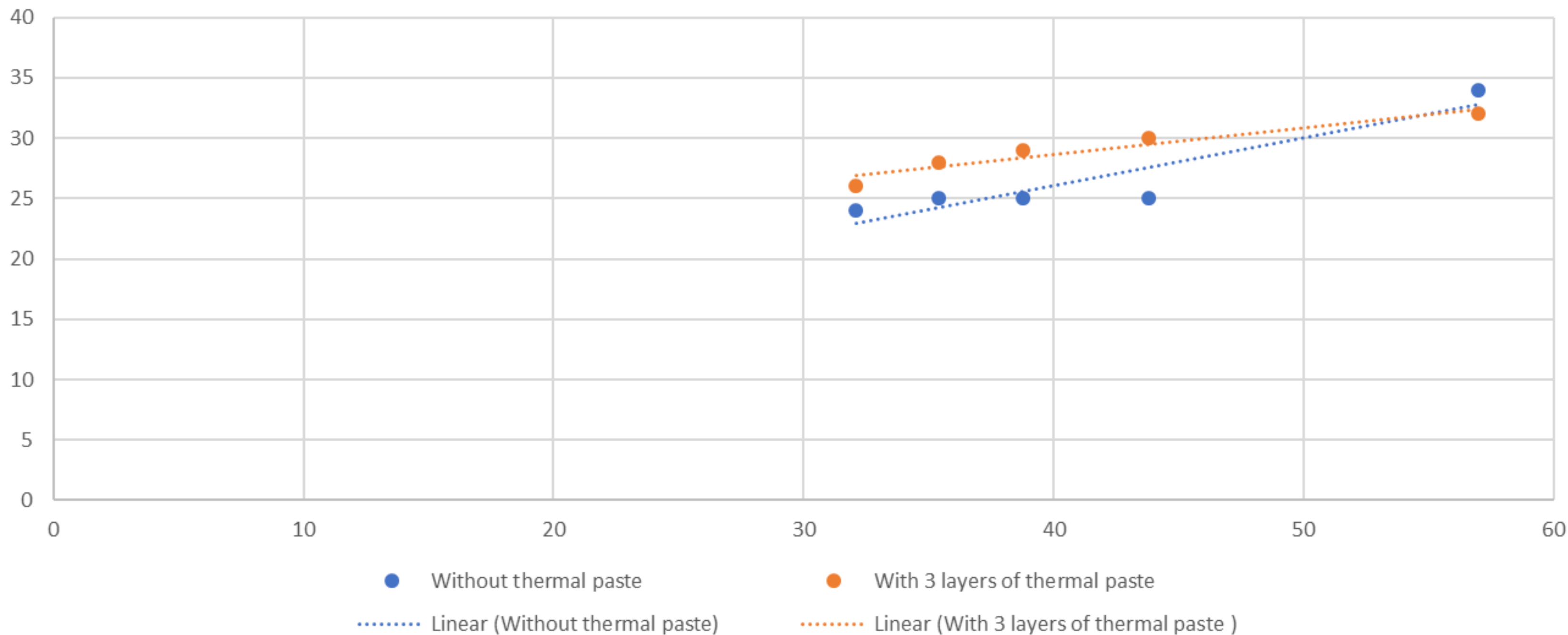


Result 1

Electronic thermometer (°C)	Without thermal paste(°C)	With 3 layers of thermal paste (°C)
57	34	32
43.8	25	30
38.8	25	29
35.4	25	28
32.1	24	26

Result 1

temperature



Repeated the experiment

- Improved the experiment by using a rubber band to hold the micro:bit and the cup.
- Waited the water to cool down for taking each reading, instead of pouring cold water into the warm water in the 1st trial.

Result 2

Electronic thermometer(°C)	Without thermal paste(°C)	With 3 layers of thermal paste(°C)
79	58.5	59.5
69	55.5	57.5
59	47	50
49	40	42
39	32	34
29	23	25

Result 2

