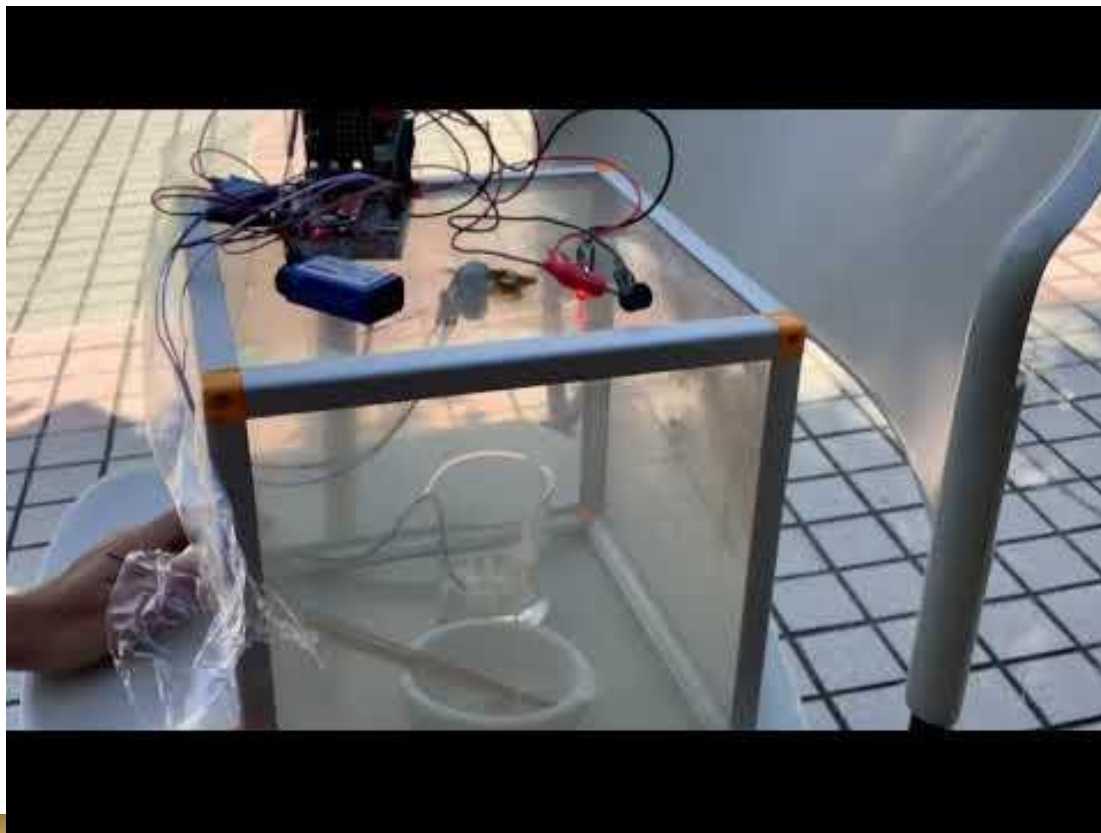
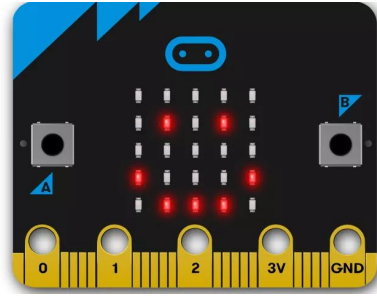


# 香港中文大學校友會聯會 張煊昌學校

防火裝置 & 煙的流動實驗

# Prototype Demonstration (防火裝置實驗)





INPUT

OUTPUT



MQ2 Smoke Sensor



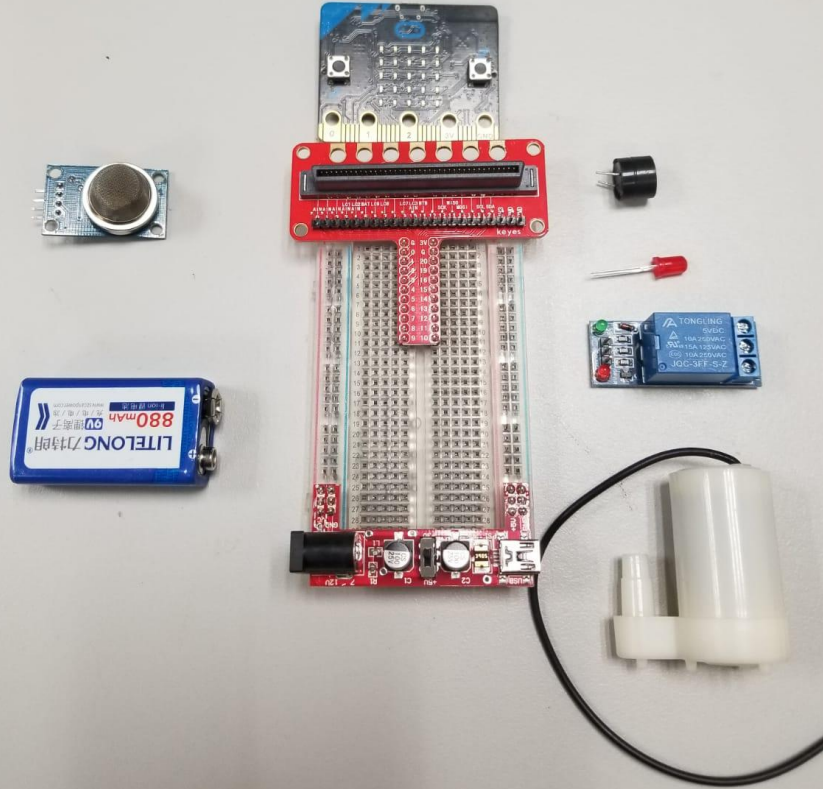
Mini Water Pump

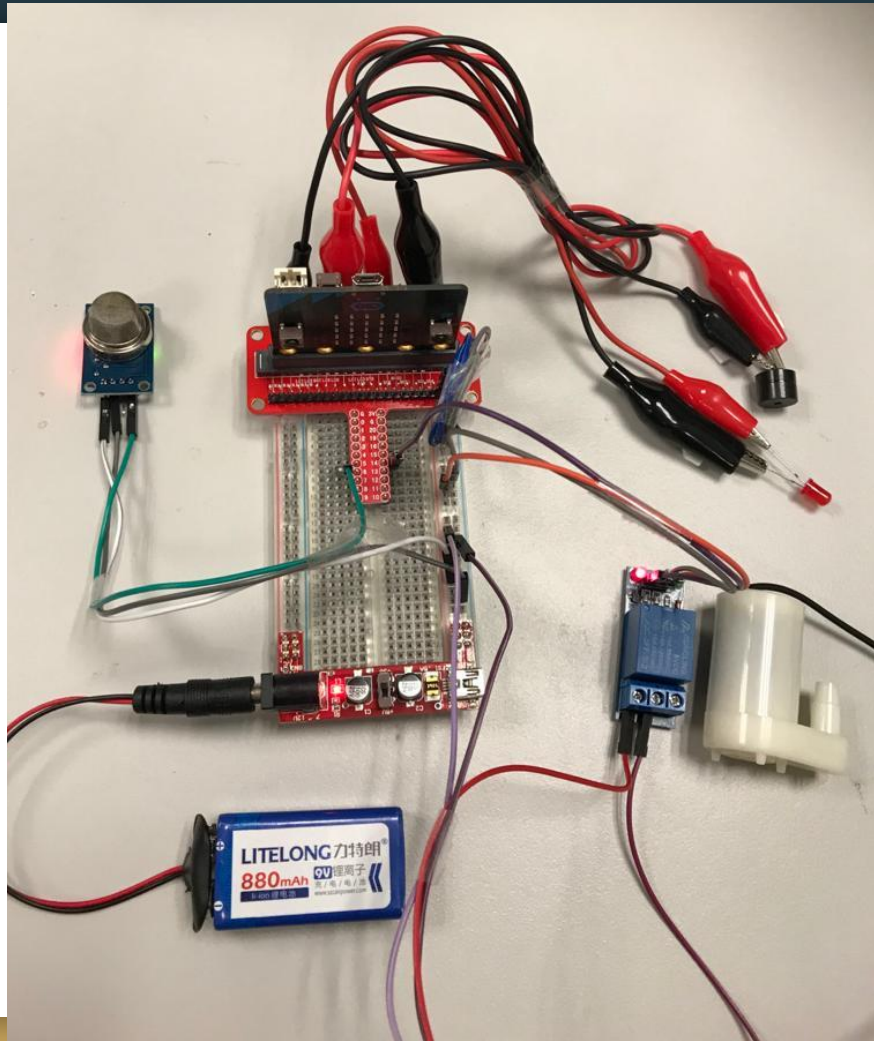


Buzzer



LED





Pin 1 = MQ2 Smoke sensor

Pin 5 = Water pump

Pin 0 = Buzzer

Pin 2 = LED

on start

digital write pin P5 to 0

digital write pin P0 to 0

digital write pin P2 to 0

forever

set Smoke to analog read pin P1

show number Smoke

pause (ms) 1000

if Smoke > 360 then

digital write pin P5 to 1

digital write pin P0 to 1

start melody wawawaaa repeating once

digital write pin P2 to 1

pause (ms) 500

digital write pin P2 to 0

pause (ms) 500

else

digital write pin P5 to 0

digital write pin P0 to 0

digital write pin P2 to 0

pause (ms) 500

Analog reading  
(0-1023)

Threshold  
(Free to adjust)

# Material List

Item(s)	Price
Micro:bit	\$100
Smoke Sensor-MQ2	\$5.5
微型水泵	\$7
膠管	\$1

9V電池	\$29
9V電池扣	\$0.8
OR	\$5.2
9V電池盒	

3V繼電器	\$4.5
面包板	\$3.7
Microbit T形擴展板	\$23

面包板電源模塊	\$8
蜂鳴器	\$0.7
LED-Red	\$0.2

杜邦線	\$2
鱷魚夾線	\$5
<b>Total</b>	<b>\$194.4</b>

# Prototype Demonstration (煙的流動實驗)





