

# The Education University of Hong Kong

## 2022-2023 Quality Education Fund Thematic Network - Tertiary Institutes

### STEM Project Team

SCHOOL: KSK 東華三院鄺錫坤伉儷中學

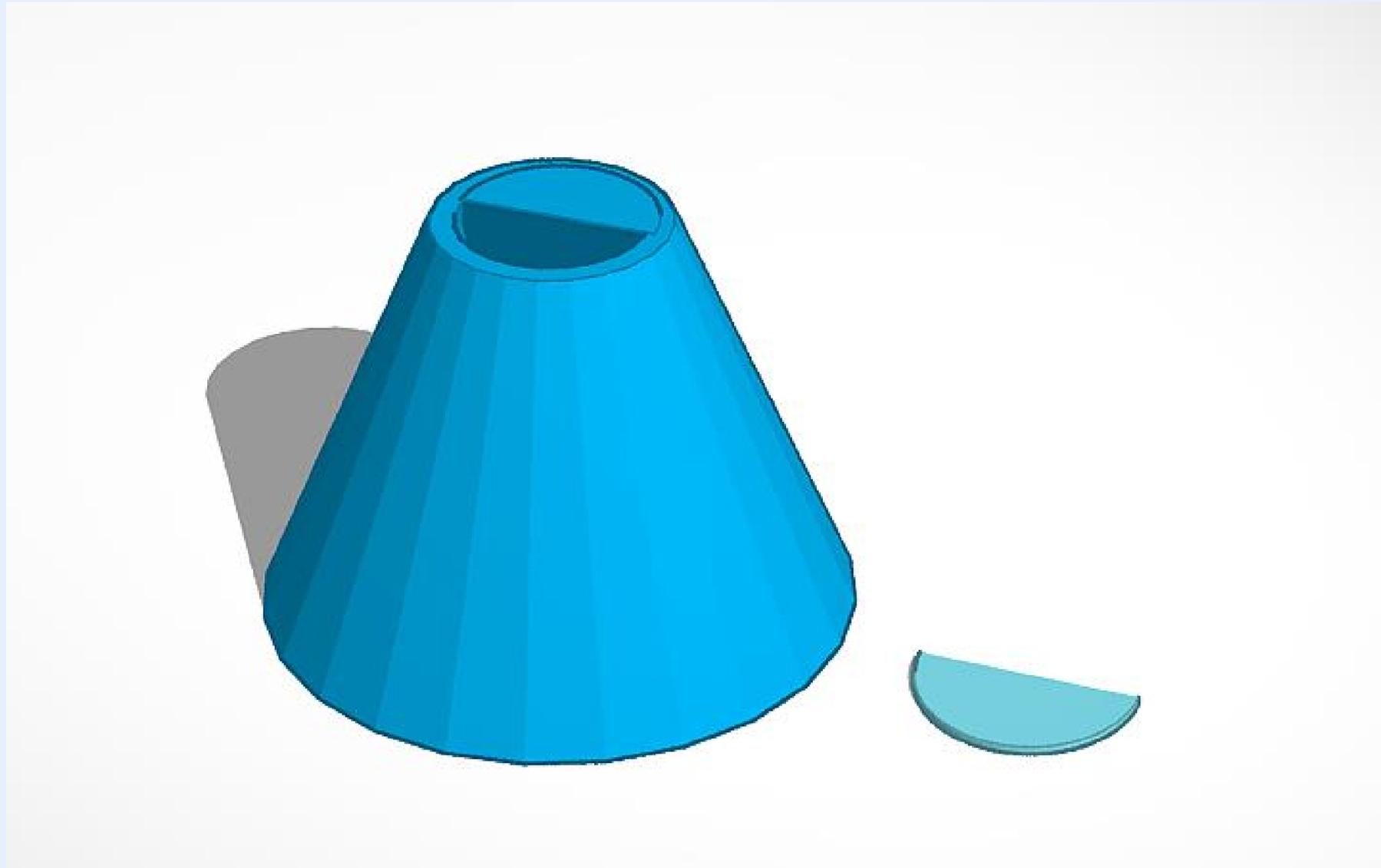
TOPIC: 3D printing (Fish Feeder)



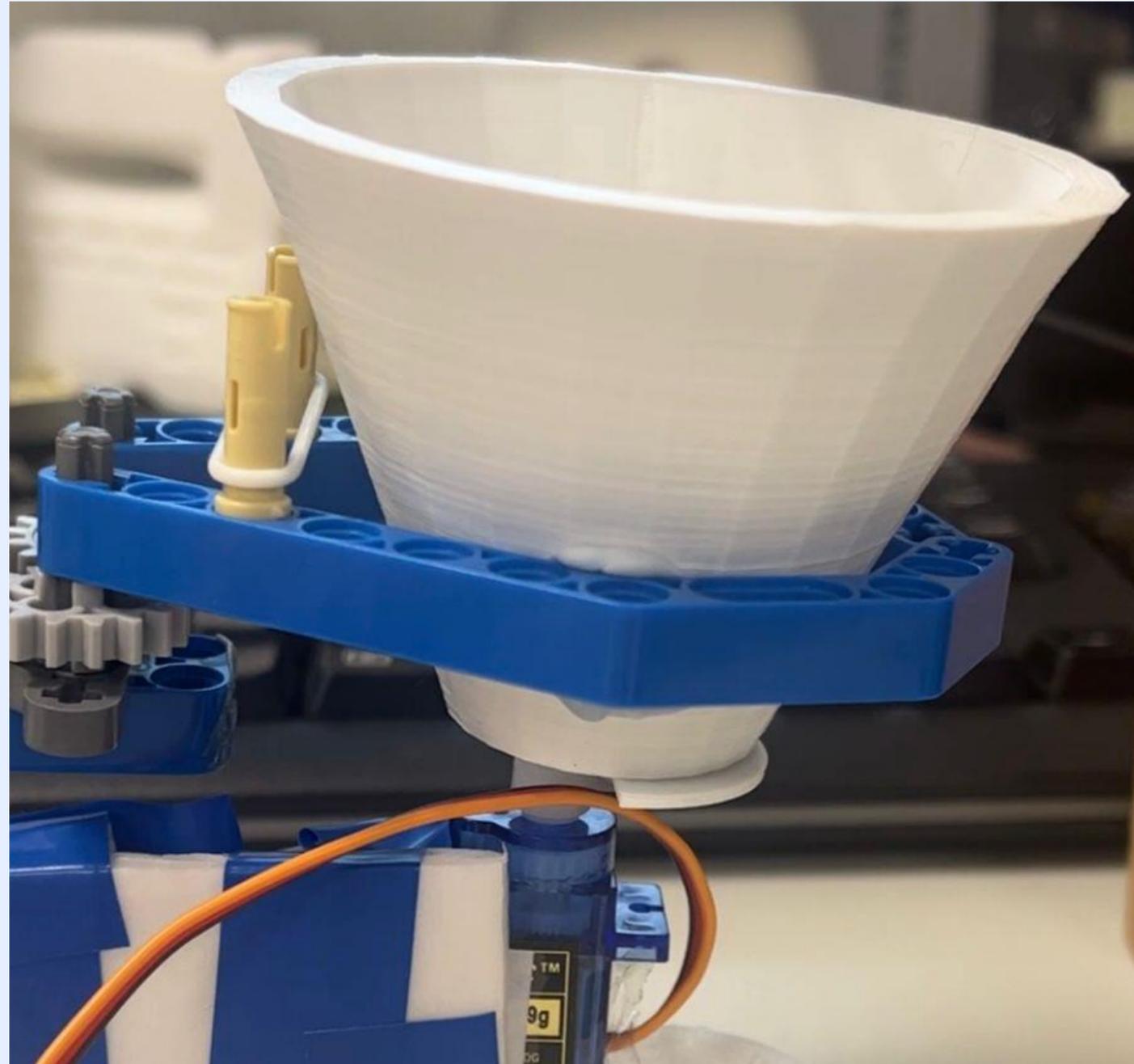
# Objective

- To learn the design of fish feeder using 3D printing

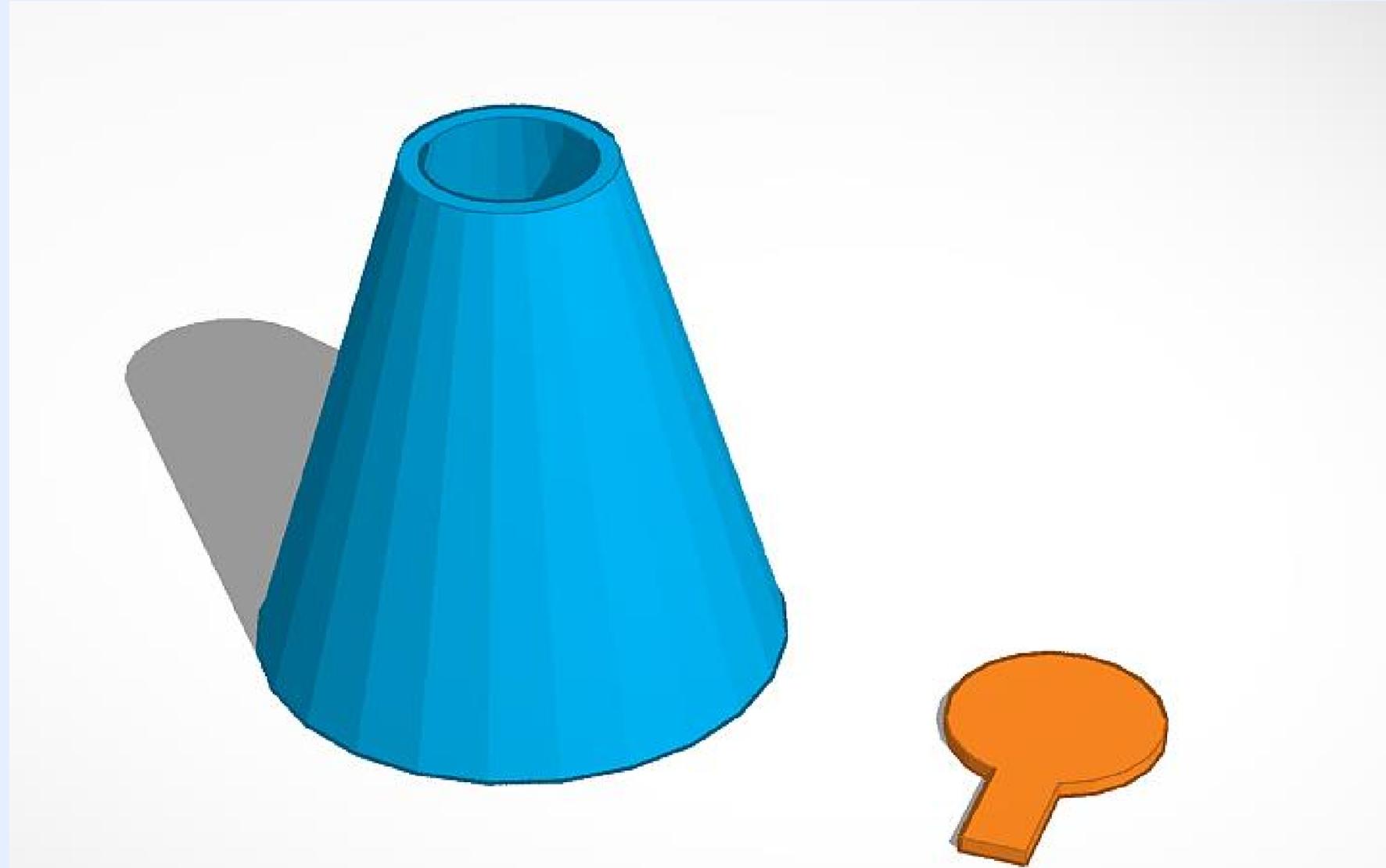
# Model 1



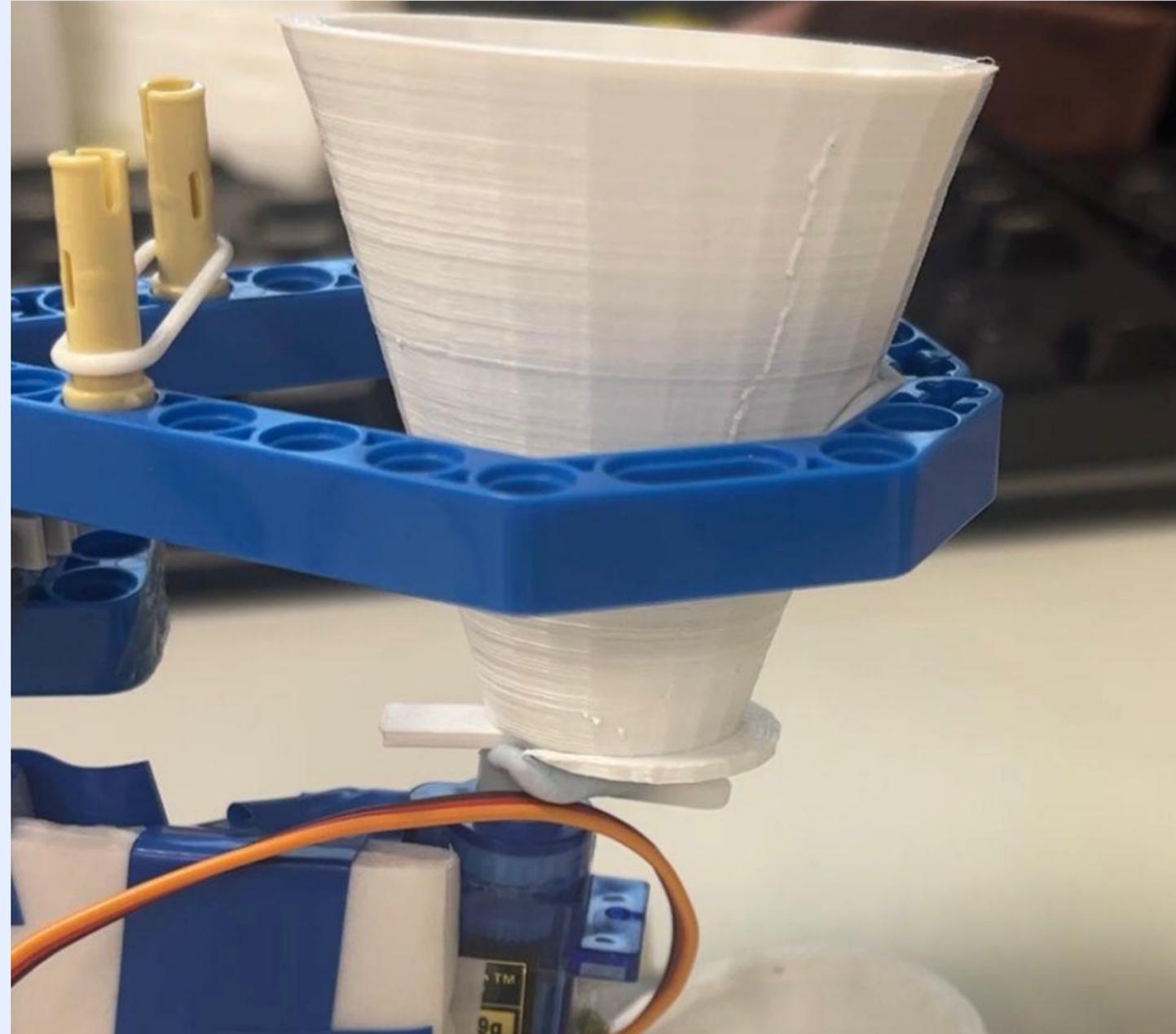
# Result



# Model 2



# Result



# Micro:bit Code

The screenshot shows the Micro:bit simulator interface. At the top, there are tabs for 'Simulator', 'Blocks', and 'JavaScript'. The main workspace contains the following code:

```
on start
  set year 2022
  month 12
  day 14
  hour 10
  minute 59
  second 19

forever
  if hour = 11 and minute = 50 then
    continuous servo P0 run at -100 %
    pause (ms) 2000
  else
    continuous servo P0 run at 0 %
```

The image displays two separate snippets of Micro:bit code. The first snippet is an 'on start' block containing a 'servo write pin P1 to 0' block. The second snippet is a 'forever' loop containing an 'if button A is pressed then' block. Inside the 'if' block, there are three blocks: 'servo write pin P1 to 0', 'pause (ms) 2000', and 'servo write pin P1 to 90'. Below the 'if' block is an 'else' block containing a 'servo write pin P1 to 0' block.