



Keyestudio Micro bit Shield For Mini Servo Car



Description

This shield is fully compatible with micro bit control board. It comes with 3 AAA batteries, SK6812-P4 RGB LED and 4 3pin ports with 2.54mm pitch.

Fix battery holder with 2M3*6MM flat screws and 2 M3 nuts, place 3 AAA batteries inside, and install the micro bit control board on the mini servo car shield with 5 M3*6MM screws.

When the right DIP switch on the shield is dialed to the ON end, the battery box supplies power, when dialed to the OFF side, the power can't be provided.

When the left DIP switch is dialed to RGB end, the micro: bit control board can control the color of 5 SK6812-P4 RGB LEDs by code, moreover, the 3pins port at the pxl-bxt can connect SK6812-P4 RGB LED modules and control their colors; when set to SERVO end, micro: bit can regulate the angles of 3 external servos



connected to 3pin ports of SERVO1 SERVO2 SERVO.

Parameters

Working voltage: DC 3.3-5V

Working current: 60mA

Maximum power: 300mA

Working temperature: -25 °C --65 °C

Size: 58 * 56 * 21mm

Weight: 24g

Environmental attributes: ROHS

Connection Diagram





Test Code

```
on start
  set strip to NeoPixel at pin P0 with 5 leds as RGB (GRB format)
  strip set brightness 255

forever
  show icon
  strip set pixel color at 0 to red
  strip set pixel color at 1 to green
  strip set pixel color at 2 to blue
  strip set pixel color at 3 to yellow
  strip set pixel color at 4 to purple
  strip show
  pause (ms) 500
  strip clear
  strip show
  pause (ms) 500

forever
  pause (ms) 1000
  servo write pin P0 to 90
  servo write pin P1 to 90
  servo write pin P2 to 90
  pause (ms) 1000
  servo write pin P0 to 0
  servo write pin P1 to 0
  servo write pin P2 to 0
  pause (ms) 1000
```

Test Results

After uploading the code successfully, wire the devices well. Set the right DIP switch to the ON side and the left DIP switch to the RGB side, 5 SK6812-P4 RGB LEDs display alternately the corresponding colors; when the left DIP switch set to the SERVO end, 3 external servos swing from 0 to 90 ° cyclically.

Resource:

<https://fs.keyestudio.com/KS0493>