RFID Expansion for Micro:bit
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RFID Expansion for Micro:bit

Introduction

RFID Expansion for Micro:bit is an RFID device with an updated UART interface running at the frequency of 125KHz, Programmable Buzzer, two Dedicated slots for Servo Motor Interfacing, USB power port, and a compact design that compatibles with all the variants of Micro:bit, V1 and V2 both. It is developed with an expansion header to connect the RFID module with Micro:bit via easy stacking.
Pin Out

<table>
<thead>
<tr>
<th>Expansion</th>
<th>Micro:bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GND</td>
<td>GND</td>
</tr>
<tr>
<td>RFID TX</td>
<td>P1</td>
</tr>
<tr>
<td>BUZZER</td>
<td>P8</td>
</tr>
<tr>
<td>SERVO 1</td>
<td>P2</td>
</tr>
<tr>
<td>SERVO 2</td>
<td>P16</td>
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</tbody>
</table>
Features

- Micro:bit GPIO Interface
- Supports 125 kHz Cards/ Keyfob/ Tags
- Compatible with Micro:bit V1 and V2
- Programmable Buzzer
- Standard RFID Expansion for Micro:bit
- Two Dedicated slots for Servo Motor Interfacing
- Power and card LED indicator
- Comes with development resources and material
- USB power port to provide power to RFID module and Micro:bit
**Specification**

- Operating Voltage - 5V
- Operating Frequency - 125 kHz
- Communication Interface - External Pins (GPIO and Power Pins)
- Default Baud Rate - 9600 bps
- Dimensions - 55.82 x 68 mm
Hardware

**RFID Expansion for Micro:bit**

helps the user to read the information of ID stored in the **RFID key fob and tags**

- Micro:bit GPIO interface
- Supports 125 kHz Cards/Keyfob/Tags
- USB Power Port
- Programmable Buzzer

Compatible with **Micro:bit V1 & V2**

Two Dedicated slots for Servo Motor Interfacing
Installation Process

Source code link: https://github.com/sbcshop/RFID-Expansion-For-Microbit/

- Attach Micro:bit on stackable connector of RFID Expansion of Microbit as shown below.

- Visit official programming website of Microbit
  https://makecode.microbit.org/
- Now Create a new project by clicking on "New project" tab and enter the name of your project.
• Now drag and drop the block as shown in the image below and click on the download button to download it on your Microbit.

• Tap RFID card, Keyfob or Tag on RFID receiver to show 12 digit unique id of card on led matrix of Microbit.

Alternate Method :

• You can directly drag and drop test.hex file to Microbit to run the above said program and Tap card/Tag to display their unique id on led matrix.