**#Key FOB**

**(A fun project with LED and Buzzer)**

**Description:**

**Independently designed and developed a Programmable Key FOB with integrated Attiny85 microcontroller, featuring LED and buzzer functionality, using KiCad software. This project highlights proficiency in PCB layout, circuit design, and electronic prototyping.**

**It contains:**

1. 1 RGB LEDs.

<https://evelta.com/0603-rgb-smd-tri-color-led/#productDescription>

2)USB connector direct pluggable. (for Programming)

3)Buzzer (to generate music).

4) Coin Cell.

5)Microcontroller (attiny or STM32).

6) single click button to turn it on and off.

7)

**Uses:**

Just for fun to blink leds on board.

Play with RGB lights.

Music generator with onboard buzzer.

This usb slot can be inserted in laptop usb to program microcontroller. Or send some settings to configure led sequence.

1. Add boot loader to the circuit.
2. Identify the type of buzzer. (with 3v and automatic)
3. Add proper rgb LED,

Questions:

1. Check Ask about constrains
2. Check schematic
3. Check PCB layout
4. Check assigned footprints
5. Ask about capacitor placement in pcb layout.
6. Take a look at differential connections

Parts:

Here is the table based on the uploaded image:

| | Component | Value | Description |

|---|-----------|-------|-------------|

| 1 | BT1 | - | 3.3V Cell : Battery:BatteryHolder\_ComfortableElectronic\_CH273-2450\_1x2450 |

| 2 | BZ1 | - | Buzzer : Buzzer\_Beeper:MagneticBuzzer\_ProSignal\_ABT-410-RC |

| 3 | C1 | - | 4.7uF : Capacitor\_SMD:C\_0805\_2012Metric |

| 4 | C2 | - | 0.1uF : Capacitor\_SMD:C\_0805\_2012Metric |

| 5 | D1 | - | LED\_RRGB |

| 6 | D2 | - | MBR0520LT : Diode\_SMD:D\_SOD-123 |

| 7 | D3 | - | 3.6V : Diode\_SMD:D\_1206\_3216Metric |

| 8 | D5 | - | 3.6V : Diode\_SMD:D\_1206\_3216Metric |

| 9 | J1 | - | USB\_A : Connector\_USB:USB\_A\_Molex\_48037-2200\_Horizontal |

| 10| PWR1 | - | LED |

| 11| R1 | - | 1k5 : Resistor\_SMD:R\_0805\_2012Metric |

| 12| R2 | - | - |

| 13| R5 | - | 68 : Resistor\_SMD:R\_0805\_2012Metric |

| 14| R7 | - | 68 : Resistor\_SMD:R\_0805\_2012Metric |

| 15| SW2 | - | SW\_SPDT : Button\_Switch\_SMD:SW\_SPDT\_PCM12 |

| 16| U1 | - | ATtiny85V-10S : Package\_SO:SOIC-8W\_5.3x5.3mm\_P1.27mm |

Would you like any modifications or additions to this table?