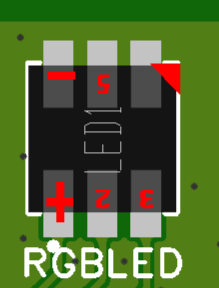
# IronMaple ESP32‐FRC‐devkit production notes

1. Product detail:
   1. PCB
      1. Base Material: FR-4
      2. Layers: 2
      3. Dimension: 100 mm\* 70 mm
      4. Product Type: Industrial/Consumer electronics
      5. PCB Thickness: 1.6mm
      6. PCB Color: Green
      7. Silkscreen: White
      8. Material Type: FR4-Standard TG 135-140
      9. Via Covering: Tented
      10. Surface Finish: HASL(with lead)
      11. Outer Copper Weight: 1 oz
      12. Electrical Test: Flying Probe Fully Test
      13. Min via hole size/diameter: 0.3mm/(0.4/0.45mm)
      14. Silkscreen Technology: Ink-jet/Screen Printing Silkscreen
      15. Board Outline Tolerance: ±0.2mm(Regular)
   2. PCBA
      1. Assembly Side Top Side
      2. Edge Rails/Fiducials Added by JLCPCB
      3. Bake Components Yes
      4. Depanel boards & edge rail before delivery Yes
      5. Solder Paste High temp.
      6. Flying Probe Test Yes
      7. Function test If possible
2. LED requires bake components. LED需要烘烤。
3. LED orientation: + facing Down (shown below) LED安装方向：+向下（如图所示）



1. H1,H2,H3,H4 are mounting holes. It is normal that it is not included in the BOM. H1,H2,H3,H4为安装孔位，所以BOM中并无。
2. CN1,U39 are WAGO connectors. 2601 1106 and 2601 1103. These do not need to be installed. CN1,U39 为WAGO连接器，2601 1106 和2601 1103。这两个零件不需要安装。
   1. As LCSC does not have 2601 1106, 2x 2601 1103 can be used to assembly one 2601 1106. 因为LCSC并无2601 1106，此零件可以使用两个2601 1103拼装而得。
3. LED Part Number

|  |  |  |  |
| --- | --- | --- | --- |
| **Comment** | **Designator** | **Manufacturer Part** | **Supplier Part** |
| TC5050RGBF08-3CJH-AF53A | LED1 | LED-SMD\_6P-L5.0-W5.0-TL\_TC5050RGBF08 | C784540 |
| NCD0603W1 | LED白 | LED0603-RD | C84265 |
| SZYY0603R1 | LED红 | LED0603-RD | C19712529 |
| XL-1608PGC-06 | LED绿 | LED0603-RD\_GREEN | C7371905 |
| SZYY0603B | LED蓝 | LED0603-R-RD\_BLUE | C434421 |
| MHT192WDT-GOLD | U38 | LED0603-RD-YELLOW | C2837383 |

1. Relay K1 part number: C35449 SRD-05VDC-SL-C. pin definition is different, but footprint is the same and will work. 继电器K1配件编码为C35449 SRD-05VDC-SL-C。管脚定义与原理图有所区别但是封装相同且已经测试可用。
2. Important resistor: R35 3.16 R34 10kΩ. These are for 12v -> 5v buck. 重要电阻：R35 3.16 R34 10kΩ。此为12v -> 5v 降压。
3. Design files should be pretty much the same from order W2025080801442514 PCB Y9-7825373A PCBA SMT025080762013-7825373A except for button silk print layer. 设计文件与之前订单W2025080801442514 PCB Y9-7825373A PCBA SMT025080762013-7825373A配置除底层丝印层应完全相同。
4. Function test if possible. 如果可行，进行通电测试。
   1. <https://studenttechsupport.com/customcanespfw/factory/>
   2. System requirement 系统要求
      1. Windows 10/11
      2. USB port
      3. CP210x Driver
      4. Chrome V.130+