Example or ordering preassembled ,WillFA7' PCBs For ordering assembled PCB from JLC you need

- Gerber ZIP file
- CPL ,Component Location file'
- BOM Bil of Material file

Go to https://jlcpcb.com/ sign in (or register) and select ,Instant Quote

Choose ,Add Gerber File' ( WillFA7\_v1.2\_03\_Final.zip in this case )



PCB dimensions will be detected automatically. Not much to adjust here except the Quantity. You have to purchase at least 5 PCBs, in this xample we will choose 15 in order to be able to show how to proceed in case some components are ,out of stock' (inventory shortage)

#### **PCB Specifications**

You can go with the defaults, however for preassembled PCBs I would choose ,Lead Free HASL' as Surface Finish as the components are also lead free. Also ,Black' as the PCB Color may look nice.

| PCB Specifications |   | ^ |
|--------------------|---|---|
| Different Design   |   |   |
| Delivery Format    | Single PCB         Panel by Customer         Panel by JLCPCB  |   |
| PCB Thickness      | 0.4         0.6         0.8         1.0         1.2         1.6         2.0   |   |
| PCB Color          | Image: Constraint of the sector of the se |   |
| Silkscreen         | White   |   |
| Surface Finish     | HASL(with lead)     LeadFree HASL ENIG  |   |

Go with the defaults for High-Spec Options and choose PCB Assembly

| High-spec Options       | ^   |
|-------------------------|---|
| Outer Copper Weight     | 1 oz 2 oz   |
| Via Covering            | Image: Tented         Untented         Plugged         Epoxy Filled & Capped         Copper paste Filled & Capped |
| Board Outline Tolerance | () ±0.2mm(Regular) ±0.1mm(Precision)  |
| Confirm Production file | Ves   |
| Remove Order Number     | No     Yes     Specify a location   |
| Flying Probe Test       | Fully Test Not Test   |
| Gold Fingers            | Ves   |
| Castellated Holes       | Ves   |
| Advanced Options        | ~   |
| PCB Remark 🖉            |   |
|                         |   |
| PCB Assemb              | ly Coupon Free Assembly for your PCB order  |
|                         |   |

Go with the defaults for PCB Assembly and choose ,confirm'



On the next page choose BOM & CPL and click , Process BOM & CPL'

| ✓ WillFA7_v1_2_03_BOM.xlsx Only accept XLS XLSX,CSV View Sample BOM | WillFA7_v1_2_03_CPL.xisx Pick&Place File, Only accept XLS,XLSX,CSV. <u>View Sample CPL</u> |
|---|--|
| Not sure where to start? Check our <u>SMT FAQs page.</u>            | Process BOM & CPL  |

### The next page is very important and need tob e checked closely!

| Top Side Total 35 | parts detected | 32 Parts confirmed | 1 parts Inventory shortage 2 parts not selected                             |            |           |              |          |             |
|-------------------|----------------|--------------------|---|------------|-----------|--------------|----------|-------------|
| Up                | loaded BOM Da  | ta                 |   |            | Review Ma | atched Parts |          |             |
| Top Designator    | Comment        | Footprint          | Matched Part Detail   |            | Qty       | Source       | Lib Type | Total Cost  |
| P13,P14           | CH3.96-4A      | CONN-TH_CH         | CH3.96-4A C10379<br>1x4P CH 1 3.96mm 4 Phosphor bronze Plugin,              | Q          | 30        | JLCPCB       | Extended | €0.9145 ⊘   |
| P18               | CH3.96-12A     | CONN-TH_CH         | CH3.96-12A C10589<br>1x12P CH 1 3.96mm 12 Brass Plugin,P=3.96m              | Q          | 15        | JLCPCB       | Extended | €1.5214 ⑧   |
| FLIP1,FLIP2,SOL   | IRL540NPBF     | TO-220             | IRL540NPBF         C111607           100V 36A 140W 44mΩ@10V,18A N Channel T | Q          | 360       | JLCPCB       | Extended | €214.4730 ② |
| IC16              | 74HC4050       | SOIC-16            | CD74HC4050M96 C131932<br>5.2mA 2V~6V 5.2mA SOIC-16 Buffer/Driver/Tr         | Q          | 15        | JLCPCB       | Extended | €3.6116 ②   |
| 100 100 104 100 1 | DIDOOCashat    | DID 00             | Z-ICS0S20P-NG00 C132507   | $\bigcirc$ | 400       | IL ODOD      | Estended | 65 4057 0   |

In an ideal case the number of parts detected should be equal tot he number of parts confirmed. In this example we have 1 part with inventory shortage and 2 parts which could not be selected.

#### Parts not selected

This happens sometimes (I'm in contact with JLC support about that) and need to be cleared manually. Scroll down tot he not selected parts and choose ,Search'

| K4          | X9555WV-2x | Plugin,P=2.54mm | No part selected | Search Q | Pre-order |  |  |
|-------------|------------|-----------------|------------------|----------|-----------|--|--|
| K5,K6,K7,K8 | PM254-2-14 | Plugin,P=2.54mm | No part selected | Search Q | Pre-order |  |  |

#### For K4 choose the first possibility

| K4                      | X9555WV-2x                                   | Plugin,P=2.54mm | No part selected |        | Search Q     | Pre-order |           |      |                 |                 |  |
|-------------------------|--|-----------------|------------------|--------|--------------|-----------|-----------|------|-----------------|-----------------|--|
| ≡ Part Info             | Q Search Part                                | ≢ Attribute     | III Price index  |        |              |           |           |      |                 | >               |  |
| X9555WV-2x13-6          | X9555WV-2x13-6TV01 Basic Parts Only In Stock |                 |                  |        |              |           |           |      |                 |                 |  |
|                         | Part   | Packa           | ge Lil           | ь Туре | Unit Price ≑ | Stock     | My Part 🖗 | Sour | ce              |                 |  |
| X9555WV<br>Plugin,P=2.5 | -2x13-6TV01<br>54mm IDC Connectors           | Plugin,P=2      | .54mm Ex         | tended | 0.2597       | 138       | 0         | JLCP | св              | select          |  |
| No Image - Wire To Bo   | S-2x13-6TV01<br>ard / Wire To Wire Cor       | CONN-S          | SMD Ex           | tended | 0.978        | 0         | 0         | JLCP | CB Inve         | entory shortage |  |
|                         |  |                 |                  |        |              |           |           |      | 2 items in tota |                 |  |

#### For K4,K5,K6,K7 choose the first possibility

| 5,K6,K7,K8           | PM254-2-14                             | Plugin,P=2.54mm | Plugin,P=2.54mm No part selected Search O Pre-order |         |              |       | No part selected         Search Q         Pre-order |     |            |             |  |
|----------------------|--|-----------------|---|---------|--------------|-------|---|-----|------------|-------------|--|
| ≡ Part Info          | Q Search Part                          |                 | II Price inde                                       | x       |              |       |   |     |            |             |  |
| PM254-2-14-Z-8       | .5                                     | search          | Basic Parts Only                                    | In St   | tock         |       |   |     |            |             |  |
|                      | Part                                   | Packa           | ge L  | ib Type | Unit Price ≑ | Stock | My Part   | Sou | irce       |             |  |
| PM254-2<br>2 54mm 2  | - <b>14-Z-8.5</b><br>54mm 双排 3A 40°C~+ | Plugin,P=2      | .54mm E   | xtended | 0.3777       | 882   | 0   | JLC | PCB        | select      |  |
| PM254-2<br>2.54mm 2. | <b>-07-Z-8.5</b><br>54mm 双排 3A -40°C~+ | Plugin,P=2      | .54mm E   | xtended | 0.2032       | 652   | 0   | JLC | PCB        | select      |  |
|                      |  |                 |   |         |              |       |   |     | 2 items in | total < 1 🔿 |  |

#### Inventory shortage

|                 |           |            | Door morood ourd (11 o              | aray con bonno onno           |   |     |        |          |            |              |
|-----------------|-----------|------------|-------------------------------------|-------------------------------|---|-----|--------|----------|------------|--------------|
| P12,P15,P16,P17 | CH3.96-9A | CONN-TH_CH | CH3.96-9A<br>1x9P CH 1 3.96mm 9 Plu | C10586<br>gin,P=3.96mm Wire T | Q | 240 | JLCPCB | Extended | €13.2596 ⑧ | 75 shortfall |

In this case you can either:

- 1- Continue and purchase & solder the parts yourself
- 2- Try to find a similar part
- 3- Do a ,pre order' and add this part to your personal part library

For option 2) best to contact me by e-mail, and option 3) is documented in a seperate document. We will continue with option 1) now

By coosing next a warning comes up

## Project has unselected parts

Some items have no parts selected yet, please confirm you have selected all the parts you want to assemble.

If you don't want to place those parts, just go ahead.



# For this example we will choose ,Do not place' but I recommend to go with option 2) or 3)



Now all components which will be assembled are shown in the picture. Double check closely before choosing next. If in doubt send me an e-mail!