# Overview

This is a revised version of the stand posted by Sean Parkinson for another version of TEC-1G, which didn’t have a compatible hole pattern to the TEC-1G Signature Edition version 1.21 (TEC-1G v1.21SE).

Mark Yelich provided a DXF file for the TEC-1G v1.4SE, which has a compatible hole pattern. The DXF hole pattern file (TEC-1G\_Edge-Cuts\_v1.4SE.dxf) is available on GitHub.

[GitHub - MarkJelic/TEC-1G: The new incarnation of the 40 year old Z80 trainer computer - Now with Fulisik LEDs!](https://github.com/MarkJelic/TEC-1G)

A blue rectangular object with a green button

AI-generated content may be incorrect.

A blue and yellow table

AI-generated content may be incorrect.

# Hardware

All mounting holes are intended for M3 button head screws or socket head cap screws. The holes that are provided in the 3D model will need to be drilled out to 2.5mm (#47 bit) and then tapped to M3.

Any metal screw that installed into the TEC-1G has a M3x0.5 Nylon Flat Washer to protect the nearby traces.

List of required hardware:

* 8, M3x0.5mm Nylon Flat Washer
* 9, M3x8mm Button Head Screw
* 6, M3x10mm Button Head Screw
* 1, M3x14mm Button Head Screw
* 1, M3x6mm x 10mm Nylon Hex Standoff (for LCD display)

# 3D Model and STLs

All the 3D modeling was done in an older 3D program called SketchUp (Ver 8) with a Ruby plug-in ( skp\_to\_dxf.rb) to generate the STLs files.

The Ruby plug in was from:

[SketchUp- Exporting/Converting to STL (2013 and Before) | 3D Printer Manufacturers - Airwolf 3D](https://airwolf3d.com/3d-printer-support/encyclopedia/part-design/sketchup-exportingconverting-stl-2013/)

For improved rigidity 3D print with stronger walls.

On the Bambu Lab XC1 printer I used the following:

* 0.4 Nozzle
* Bambu Lab PLA Basic
* Process “0.20mm Strength @BBL XC1”
* Supports: normal(auto)

STL files:

* YP-05\_Carrier.STL
* UPS\_Frame.STL
* Rail\_Right.STL
* Rail\_Left.STL
* Rail\_Center.STL
* Leg\_Right.STL
* Leg\_Left.STL
* Leg\_Center.STL

# YP-05 USB to TTL UART Module

There is **ONE** mounting hole that needs to be tapped to M3.

Parts Required:

* 1, YP-05\_Carrier.STL
* 1, M3x8mm Button Head Screw
* 1, M3x0.5mm Nylon Flat Washer
* 1, 6-Pos Header Pins (See below)
* 1, 6-Pos Header Socket (See below)

The USB to TTL UART Module carrier is designed to use a combination of header pins and header sockets.

* Pins are Sullins / PRPC036SAAN-RC (gold) or PREC036SAAN-RC (tin)
* Socket is Sullins / PPPC361LFBN-RC (gold) or PPTC361LFBN-RC (tin)

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# Rails

The location of the rails is in reference to viewing the board from the topside with the keypad on the right.

Parts Required:

* 1, Rail\_Left.STL
* 1, Rail\_ Center.STL
* 1, Rail\_ Right.STL
* 6, M3x0.5mm Nylon Flat Washer
* 6, M3x8mm Button Head Screw
* 1, M3x6mm x 10mm Nylon Hex Standoff (for LCD display)

There are three rails, and each rail has at least one hole that needs to be tapped to M3.

* Left
  + It is located under the USB to TTL UART Module
  + It has **FOUR** holes requiring tapping to M3.
* Center
  + It has **FIVE** holes requiring tapping to M3.
* Right
  + It is located on the keypad side of the board.
  + It has **FIVE** holes requiring tapping to M3.

Mount the rails to the board as shown in the diagram below.

There are **SIX** M3x8mm Button Head Screws that mount the rails to the board, and each screw has a M3x0.5mm Nylon Flat Washer.

The center rail has ONE M3x6mm x 10mm Nylon Hex Standoff that is used for mounting the LCD display.

A blue rectangular object with metal rods attached to it

AI-generated content may be incorrect.

# UPS Power Source

The UPS mounts on the underside of the board at the upper left (under the 5V regulator).

There is **ONE** mounting hole that needs to be tapped to M3 in the UPS\_Frame and must be taped from **BOTH** ends.

Parts Required:

* 1, UPS\_Frame.STL
* 1, M3x0.5mm Nylon Flat Washer
* 2, M3x8mm Button Head Screw
* 1, M3x14mm Button Head Screw

A blue and yellow object with a pink tube inside

AI-generated content may be incorrect.

The UPS batter holder is close to one of the mounting holes. The simplest solution is to use a hobby knife or utility knife to shave away some of the battery holder near the mounting hole.

A close up of a piece of electronics

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Place a M3x8mm Button Head Screw into that hole and then attach it to the frame, but do not fully tighten the screw at this point.

A drawing of a battery

AI-generated content may be incorrect.

The UPS is now **loosely** mounted to the Frame with just one screw.

A colorful object with a yellow green and purple object

AI-generated content may be incorrect.

Set the UPS and Frame on the board and align the hole in the Left Rail.

Install a M3x14mm Button Head Screw and do not fully tighten.

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| A blue and yellow rectangular object with a pink object on it  AI-generated content may be incorrect. | A blue rectangular object with a pink and yellow frame  AI-generated content may be incorrect. |

Install the M3x8mm Button Head Screw and M3x0.5 Nylon Flat Washer on the board side.

A blue square table with colorful objects

AI-generated content may be incorrect.

Now tighten the two prior screws that were installed loosely in the above steps.

This completes the installation of the UPS.

A colorful table with a blue top

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# Legs

The three legs mount to the rails.

Parts Required:

* 1, Leg\_Right.STL
* 1, Leg\_Center.STL
* 1, Leg\_Left.STL
* 6, M3x10mm Button Head Screw

A blue and yellow machine

AI-generated content may be incorrect.