All BrainBoardz projects are developed in EasEDA using the EasyEDA Standard Edition. You can download this editor from here:

https://easyeda.com/page/download

The schematics use parts that are sourced from LCSC.

To utilize the project in EasyEDA use File:

1) Open and select the zip file. EasyEDA will import the json files.
2) Simply make a project using these files and you are good to go.
3) We recommend starting with the Nucleus as the base project. This will ensure compatibility with the mounting holes of the Neuron modules (Z and M).

Usage Notes:

You are welcome to design/manufacture your own BrainBoardz board or Neuron compatible module(s). We do not allow 3rd party boards and modules to use our logo/branding, but you are welcome to indicate "BrainBoardz Compatible" on your board if it is 100% compatible and it is manufactured using a lead free process.

Please ensure that you follow our design guidelines closely. The pin assignments are very specific and have to be 100% consistent to maintain compatibility. The distances between the mPCIe connector and the mounting hole for the Neurons must be very precise. This will ensure compatibility with both the module positioning and the correct sizing of the mounting and riser holes. We recommend using our Nucleus template as a base outline for your project; it provide a minimum footprint for Neuron based projects. You can use our templates as a guide in your preferred EDA. At BrainBoardz we use EasyEDA as our primary EDA, but it is easy convert our JSON template file to KiCad using this handy tool if that is your preference:

https://wokwi.com/tools/easyeda2kicad

Designing for mPCIe:

Implementing the Mini PCE Express (mPCIe) based mounting system used in BrainBoardz does require access to some tools and supplies that are commonly available to electronics hobbyists:

- A hot air station
- A reusable mPCIe stencil (available from JLCPCB and the BrainBoardz store etc.)
- Lead free SMD solder paste
- A soldering iron, resin and a solder wick for fixing any soldering issues
- An analog or digital microscope for verification/rework is strongly recommended

If you design a really interesting board we would love to see it!