



RAISE3D



Bilby 3D

Introduction:

Wiring Systems, a leading contract manufacturer in Rydalmere NSW, has successfully integrated Raise3D 3D printers from Bilby3D into its operations. Specialising in diverse industries such as Defence, Rail and Road, Medical, Recreational Vehicles, and Solar PV, the company has embraced 3D printing to streamline its manufacturing processes.



Challenges Faced:

Wiring Systems initially experimented with a \$5000 3D printer from a different supplier but encountered issues due to the lack of supplier support. Recognising the potential of 3D printing, Harry Antoguelli sought a reliable solution that would meet their printing needs and provide comprehensive support.

Solution:

After that experience, Harry came to Bilby3D and was introduced to the Raise3D Pro3 Plus. Harry mentioned how a main consideration for purchasing from Bilby3D was that we offer parts and support for the Raise3D machines, so he could have the peace of mind that if any problems were to arise then he would have a phone number to call, and that there are spare parts for his machine stocked in Australia.

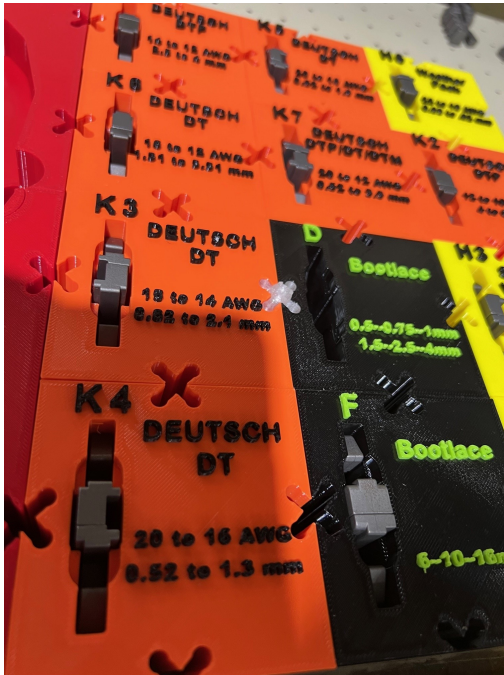


Bed of Wiring harness parts being Printed on the Raise3D Pro 3 Plus

Some examples of the practical applications that Wiring Systems uses their Raise3D Pro3 Plus for include :

Hand tool holders:

Having a dedicated and foolproof holder for all the hand tools required at a given assembly station means that tools don't find themselves wandering across the workshop. Always having the required tools for a task at an arms reach is a simple and under-rated system which decreases assembly time, cleanup and helps make a streamlined process which aids with new staff on-boarding.



3D Printed Tool Holders



3D Printed Hand Tool Holders

Assembly Fixtures:

Some stages of assembling a complex product can be made much easier with purpose built fixtures, which hold a sub-assembly in a given orientation, making it much easier to attach more components, hardware and wiring. Assembly fixtures also help with making a standardised and streamlined process so that all assembly operator are following the exact same steps, ensuring all products are identical rather than having slight differences depending on who assembled them.



3D Printed Assembly Fixture

Drilling Guides:

In the fabrication of some components, precise drilled holes are required, Drill guides are used in order not to have to measure and mark each part as it comes through the station. The drill guide is placed over the part, and shows where the holes are required.



3D Printed Drilling Guide with metal inserts

3D Printed Parts and Products:

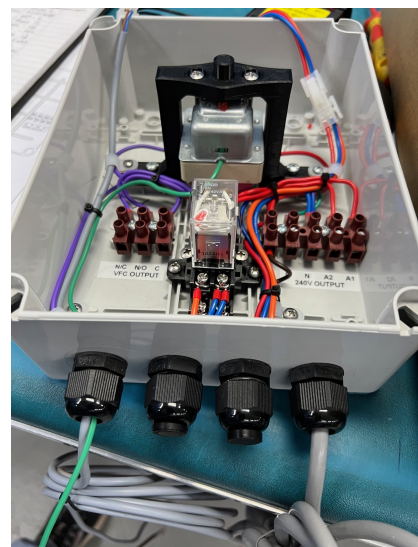
Wiring Systems also have been using their Raise3D Pro3 Plus to print parts for their wiring harnesses. The 3D printing process enables new design iterations of the parts to be produced immediately and at no additional cost, whereas if the parts were made with another process such as injection moulding, each design iteration is very costly and has a long delivery time.



3D Printed Wiring Connector Part



3D Printed Shroud for Wiring Connector



3D Printed Mounting bracket and Passthrough hardware

Conclusion: Wiring Systems was able to utilise the versatility and speed permitted by 3D printing with their Raise3D Pro3 Plus. It allowed them to build their own tooling and fixtures in house, increase their organisation and ease of use of assembly stations, and print sub components for their products instead of ordering slow and expensive injection moulded parts. The speed, reliability, and low contact time of the Raise3D Pro3 Plus has allowed them to set up a print job and walk away, completing other important work, while the machine works for them. Purchasing from Bilby3D adds an extra layer of confidence for Wiring Systems. Knowing that they can rely on prompt support and access spare parts from Australian stores ensures the long-term viability of their Raise3D Pro3 Plus investment.