

# Solving a Supply Chain Crisis

Use Case: Circuit Board Bracket

## Challenge

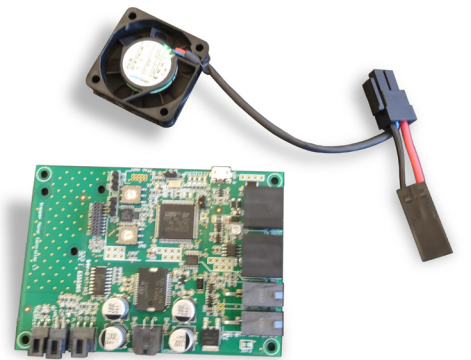
When the H350™ 3D printers were first being produced, supply chain setbacks were a pressing issue for manufacturers worldwide. This directly affected the H350 since a PCB Stepper Controller Board was originally ordered from a supply chain vendor. Unfortunately, this specific board was discontinued due to delays brought on by COVID-19. The H350 Production Team needed to strategize internally and decided to utilize a new electronics board which could be sourced easily. The only caveat was that this new board required air cooling. In order to implement the cooling function, a fan must be mounted on the board.

## Solution

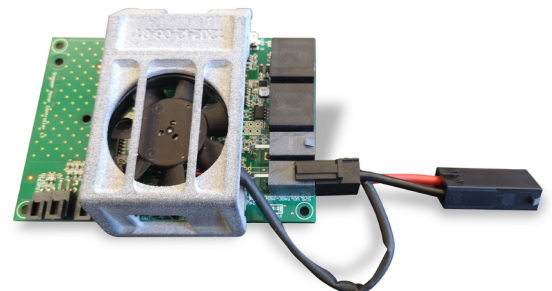
To properly secure the fan to the electronics board, the H350 Production Team turned to a machine they already knew extremely well: the H350 3D printer. They designed and printed a circuit board bracket which could easily secure the fan to the electronics board. The board could then be safely mounted within the H350 printer. This bracket occupies a minimum amount of space and doesn't require any screws or tools. To achieve a proper fit, the bracket was stiffened, and tolerances were tightened so it could be accurately clamped on the board.

## Impact

As shown here, 132 brackets can be nested within the same build which leads to greater cost-efficiencies and a high yield of end-use parts. Due to the H350 Production Team's quick thinking and trust in SAF technology, they were able to finish this crucial element of the printer's production. Now, every H350 3D printer includes the circuit board bracket which was designed with SAF and printed by the H350 itself. Without the capability to print production-grade parts on-demand, this critical supply chain issue would not have been resolved and the printer's release would have been delayed.



The electronics board and fan.



The circuit board bracket attaches the fan to the electronics board.

