Nortech’s use of 3D printing has been a crucial factor in helping our customers succeed. We have used 3D printers to accelerate the design and prototyping process as well as ramping low volume manufacturing to higher volumes. Based on feedback we receive from our startup medical device customers, this process helps them with fund raising, control spending, and get their product to market faster.

A major part of Nortech’s success in meeting customer’s time to market expectations, has been our ability to use 3D printing. Nortech has invested in Stratasys industrial-grade 3D Printers using PolyJet or Fused Deposition Modeling (FDM) technologies to provide solutions to a wide range of needs from rapid prototyping to manufacturing. Currently, we have two FDM machines, F360 and Fortus 450mc, which are professional 3D printing technologies using production-grade thermoplastics. These thermoplastics allow parts to have the mechanical, thermal, and chemical strength needed to hold up in real-life environment situations.

FDM technology is used to build concept models and functional prototypes. Depending on the size and complexity of the part, we can accelerate development time by turning around parts within hours. This allows us the flexibility to support our operation’s continuous improvement opportunities. We can turn around manufacturing fixtures within a day, ultimately saving time and money. Specifically, the Fortus 450mc gives us the ability to produce low production volume parts for quicker product release, bridging the gap of longer lead times and deferring higher capital costs with production injection mold tools.

Nortech also uses a Stratasys Objet PolyJet 3D Printer. The PolyJet gives us the ability to print complex shapes with a large variety of colors and materials. The 3D printer can build multi material parts from soft, rigid, and clear parts. The same technology helps us with low volume mold tooling. For Nortech interconnect business, PolyJet technology lets us create overmolded tools for wire and cable thermal plastic connectors. We can have a mold tool completed in one day, allowing us to start running molded samples the next day, instead of waiting weeks. The mold tooling produced on the PolyJet can produce up to 5-10 parts, depending on the molded compounds, to prove proof of concept. This reduces the development time to weeks and reduces the machining costs of traditional steel tooling.

We envision 3D printing will continue to play an integral role at Nortech, as we drive innovation and take new product technologies to manufacturing. Nortech serves customers in the medical, aerospace and defense and industrial markets. We anticipate the benefits to our customers, of 3D printing technologies to continue to expand.