ABSTRACT

Plastic waste is a problem that causes a lot of losses. The National Plastic Action Partnership (NPAP) notes that only 30% of plastic waste is managed properly and the rest is not managed properly and even pollutes the environment. To reduce plastic waste that is not managed properly, turning it into the plastic waste can be a solution.

With the problems described above, the authors conducted a study entitled Design and Build of a Delta Type Massive 3D Printer with Plastic Garbage Materials. 3D printer is a printing machine that can print 3-dimensional products. 3D printers generally use a filament, but in this study, the authors used plastic waste pellets. In this study, PE types of plastic waste were used to make 3D printer materials. With this research on the delta type 3D printer, it is hoped that it can become an innovation for the general public to recycle plastic waste into goods with a higher value.

The results of this Final Project research show a Massive 3D Printer device that can convert plastic pellets into 3-dimensional products. The device that has been made has a length of 107 cm, a width of 75 cm and a height of 205 cm. This Massive 3D Printer uses a stepper motor as a carriage drive component that can move accurately with an accuracy rate of 100%.

Keywords: *3D printer, Plastic Waste, Delta Type*