Retrofitting of a Creality Ender 3 to Allow for 5 Axis Motions

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3D printing also known as additive manufacturing is an area of technology that has been on a rapid rise in recent years. Through the use of 3D printing it has become easier to manufacture and prototype items, that would have been difficult to do using standard manufacturing methods. In even more recent years there has been a new type of 3D printer that has been developed, and they are know as 5-axis 3D printers. These printers add 2 rotational axes to the standard 3 on the typical printer. However these printers can be quite costly, which is why I aimed to develop a modification that can be done to an existing printer to allow for these motions. This would allow for the potential of 5-axis becoming more cost effective, and minimizing plastic waste material from 3D printing as they require less support material.

Awards Won: