Automatic Wire Cutter - Assembly Information

Stepper Motors

This machine was built using stepper motors. Two of the stepper motors are responsible for the linear motion of the blade and the last motor powers the extruder that moves the wire forward and backward.

3D Printing

Most of the 3D printed parts are responsible for housing, but there are 3 spool-holding parts that are responsible for holding the spool of the wire in place. Additionally, there is a pipe glued to the back end of the extruder to keep the wire from bending away from the blade.

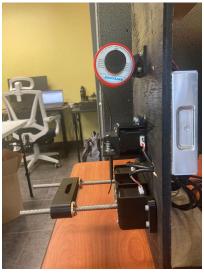
HexTech Circuit Board

Each motor is connected to the HexTech circuit board on the back side of the wooden board. The program that runs the machine is set up to function correctly only if the extruder stepper is plugged into the "stepper 2" output and the stepper motors are connected (from left to right) to the "stepper 0" and "stepper 1" outputs respectively.

<u>Pictures</u>

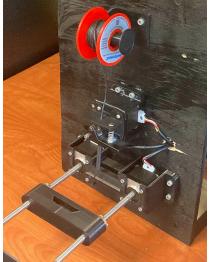
Front Side





Back Diagonal





Wide

