

Automatic Pencil Sharpener - Assembly

Motors

The project uses two motors. A stepper motor, responsible for linear motion, moves the 3D printed platform. A DC motor, responsible for rotational motion, rotates the pencil.

3D Printing

Stepper Motor Housing - houses the stepper motor

DC Motor Housing - houses the DC motor

DC Motor Attachment - attaches to the dc motor and holds the coupler

Rod Support Platform - lifts the rod supports

Pencil Platform - moves the pencil forwards and backwards

Pencil Support Base - supports the pencil support topper

Pencil Support Topper - supports and guides the pencil into the sharpener

Sharpener Housing - houses the sharpener

Sharpener Platform - supports the sharpener housing

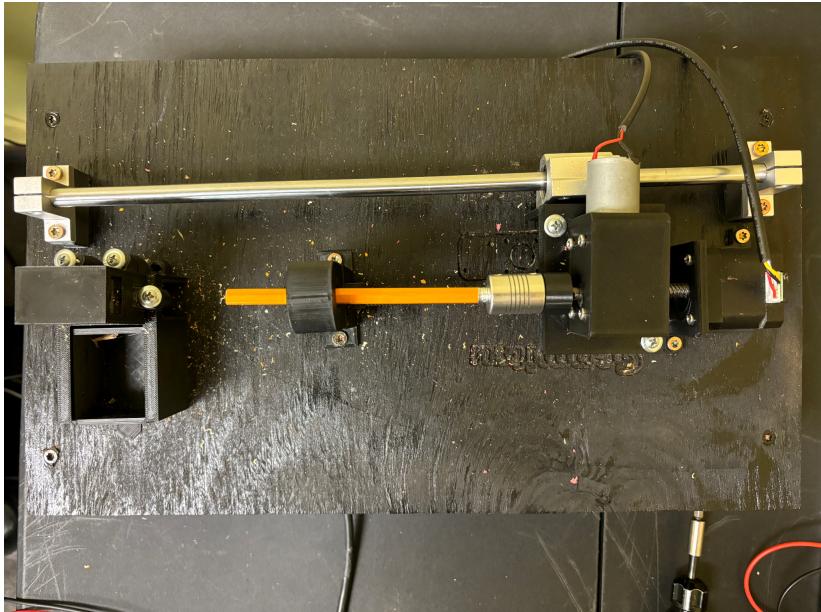
Shavings Bin - receives pencil shavings

HexTech Board

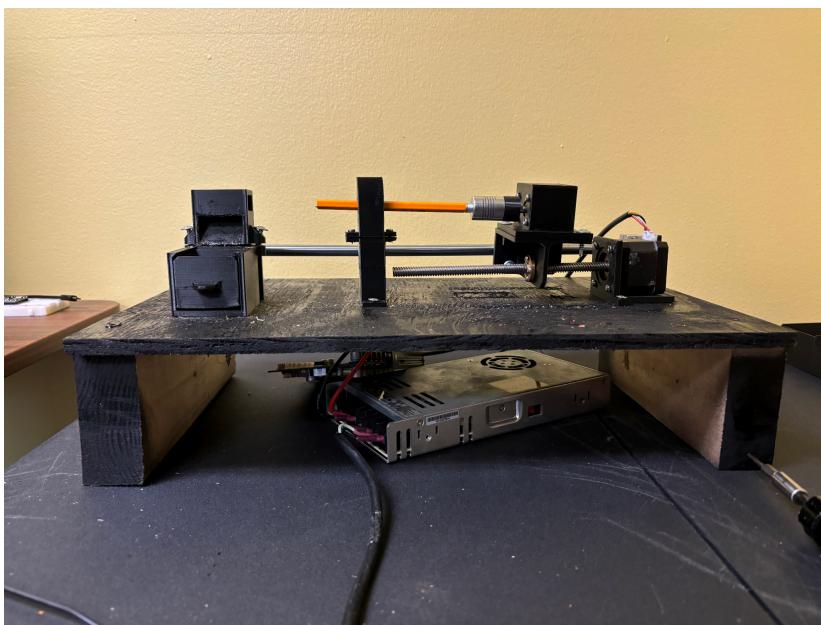
The motors connect to the HexTech board on the underside of the wooden platform. The stepper motor is connected to the stepper.00 input and the dc motor is connected to the dc.00 input.

Pictures

Top



Front



Sides

