

Aural Script Assembler

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With the huge technology development, we haven't seen specific help for people suffering with essential tumors and paralyzed people. But our assembler is here to help those people. It will not specify any brand of electronic devices since we are sending simulations throughout device we can really help everyone fairly. This machine brought to life by combining the system of printing, handwriting and sound recognition system. This machine will be connected to device which contains developed programs that send simulation to the machine once you start speaking so it starts writing fast. It's not similar to any printer or machine since it can write on different surfaces different fonts sizes and different types of pens and also cheaper. The idea behind creating this machine and choosing these specific parts of the machine because affordability. Because prices of most of normal printers are +\$450, yet in the assembler all parts don't cost more than 175\$. Machine is 2D plotter. The machine works by the mechanism of transporting aural stimulations from phone on a paper by the app we programmed with the embedded sound recognition system by microcontroller. When they are received, it starts working by the x-axis and the y-axis movements by Nema 17 motors (high quality 2-ampere current), thus reduced by drivers to protect the microcontroller. A servo motor is responsible for lifting the pen up and down exerting almost 20kN. So, using a spring to minimize the exerted pressure on the paper. Power is supplied by a 12V and 5V. With each rotation of the screw, the shift moves 2 mm. Next are wires that stand for being not hazardous, only 12V DC and connected by short. Everything is secured with custom made acrylic boards that motivate stimulus sent from phone to machine.