

Design & Concept By :

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Submitted to

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Introduction

What is Digital write replicator?

Arduino Drawing Replicator bot can reproduce any drawing you make on a mobile app. It uses g-code like instructions to draw on a flat surface using whiteboard pen. When you start a new drawing, the bot automatically erase the surface and get back in action.

How does it work?

If you know the distance between the steppers and you know the length and angles of the sticks then you can calculate the XY position of the pen. If you know the XY position of the pen you can calculate back the right angles of sticks to get there.

When you draw on mobile screen, the app

analyses the drawing and sends to Arduino board over blue-tooth connection all data to reproduce the drawing.

Practical life implementation?

This bot can make human mankind work easy.

If somebody wants to teach while sitting, this bot can easily replicate the steps written by the user on white board easily thus making teaching very easy.

Hardware Required

Ice Cream Sticks

- 1 Ribbon Wire
- 1 Arduino
- 1 UART cable
- 3 servo stepper motors
- 1 dry wipe pen

M3 nuts, bolts, thread tap

Software Required

Windows 32/64 bit

Arduino 1.0 or higher

Time library for Arduino

Circuit Diagram

