DDA Algo.

**CODE**#include "mainwindow.h"

MainWindow::MainWindow(QWidget \*parent)

: QMainWindow(parent) {

resize(400, 300); // Set the window size

}

MainWindow::~MainWindow() {}

void MainWindow::paintEvent(QPaintEvent \*event) {

QPainter painter(this);

drawLineDDA(painter, 50, 50, 350, 250); // Example line coordinates

}

void MainWindow::drawLineDDA(QPainter &painter, int x0, int y0, int x1, int y1) {

int dx = x1 - x0;

int dy = y1 - y0;

int steps = std::max(abs(dx), abs(dy));

float xInc = dx / (float) steps;

float yInc = dy / (float) steps;

float x = x0;

float y = y0;

for (int i = 0; i <= steps; i++) {

painter.drawPoint(round(x), round(y)); // Draw the pixel

x += xInc;

y += yInc;

}

}

**OUTPUT**

****