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#include <stdlib.h>
#include <math.h>
#include "graphics.h"

void dda_line(int, int, int, int);
void dda_line(int x1, int y1, int x2, int y2)
{
    float x, y, xinc, yinc, dx, dy;
    int k, step;

    dx = x2 - x1;
    dy = y2 - y1;

    if(abs(dx) > abs(dy))
        step = abs(dx);
    else
        step = abs(dy);

    xinc = dx / step;
    yinc = dy / step;

    x = x1;
    y = y1;

    putpixel(x, y, WHITE);

    for(k = 1; k <= step; k++)
    {
        x = x + xinc;
        y = y + yinc;
        putpixel(x, y, WHITE);
    }
}

int main()
{
    initwindow(400, 400, "DDA - computer table");

    //top surface
    dda_line(75,50,300,50);
    dda_line(50,150,325,150);
    dda_line(75,50,50,150);
    dda_line(300,50,325,150);

    //top thickness
    dda_line(50,160,325,160);

    //legs
    dda_line(50,150,50,300);
    dda_line(60,160,60,300);
    dda_line(50,300,60,300);
    dda_line(75,245,75,160);
    dda_line(75,245,60,285);

    //left
    //left inner vert surface

    //right
    //right inner vert surface

    dda_line(315,160,315,300);
    dda_line(325,150,325,300);
    dda_line(315,300,325,300);
    dda_line(300,245,300,160);
    dda_line(300,245,315,285);

    //bottom thickness
    dda_line(60,295,315,295);
    dda_line(60,285,315,285);

    //vert separator
    dda_line(255,285,255,180);
    dda_line(265,285,265,180);
    dda_line(265,180,255,180);

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dda_line(261,160,265,180);           //thickness from top
dda_line(251,160,255,180);
dda_line(251,160,251,245);           //inner vert left surface
dda_line(251,245,255,285);

//bottom surface
dda_line(265,245,300,245);
dda_line(75,245,251,245);

//keyboard surface
dda_line(85,173,85,180);
dda_line(250,173,250,180);
dda_line(85,180,250,180);
dda_line(85,173,250,173);
dda_line(93,160,85,173);
dda_line(245,160,250,173);
dda_line(85,160,85,180);

while ( !kbhit() )
    delay(100);

return EXIT_SUCCESS;
}

```

