#include<stdio.h>

#include<conio.h>

#include<graphics.h>

#include<math.h>

int sign(int xinc)

{

if(xinc<0)

return -1;

else

if(xinc>0)

return 1;

else

return 0;

}

void dda(int x1,int y1,int x2,int y2)

{

int i;

float dx,dy,xinc,yinc,length,x,y;

dx=x2-x1;

dy=y2-y1;

if (abs(dx)>=abs(dy))

{

length=abs(dx);

}

else

{

length=abs(dy);

}

xinc=dx/length;

yinc=dy/length;

x=x1+(0.5\*sign(xinc));

y=y1+(0.5\*sign(yinc));

i=1;

while(i<=length)

{

putpixel((int)x,(int)y,4);

x=x+xinc;

y=y+yinc;

i++;

}

}

void house()

{

int i=0,j=0,cx=1,cy=1;

while(!kbhit())

{

cleardevice();

dda(100+i,50+j,50+i,100+j);

dda(50+i,100+j,150+i,100+j);

dda(100+i,50+j,150+i,100+j);

dda(50+i,100+j,50+i,160+j);

dda(50+i,160+j,150+i,160+j);

dda(150+i,160+j,150+i,100+j);

dda(75+i,160+j,75+i,130+j);

dda(75+i,130+j,125+i,130+j);

dda(125+i,130+j,125+i,160+j);

delay(100);

i += 3\*cx;

j += 3\*cy;

if(i > getmaxx()-200 || i < 0)

cx \*= -1;

if(j > getmaxy()-180 || j < 0)

cy \*= -1;

}

}

void main()

{

int gd=DETECT,gm;

clrscr();

initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");

house();

getch();

closegraph();

}

