```c
/* C code for serial reception of data and graphical display */

#include<math.h>
#include <graphics.h>
#include <stdlib.h>
#include <stdio.h>
#include <conio.h>
#include<dos.h>
void plotsquare(int r,float th);
void main(void)
{
  /* request auto detection */
  int gdriver = DETECT, gmode, errorcode;
  int midx, midy;
  int radius =320;
  int th,a,r;
  char c;
  /* initialize graphics and local variables */
  initgraph(&gdriver, &gmode, "");

  /* read result of initialization */
  errorcode = graphresult();
  if (errorcode != grOk)  /* an error occurred */
  {
    printf("Graphics error: %s\n", grapherrormsg(errorcode));
    printf("Press any key to halt:");
    getch();
    exit(1); /* terminate with an error code */
  }

  midx = 320;
  midy = 480;
  setcolor(getmaxcolor());
  setbkcolor(1);

  /* draw the circle */
  arc(midx,midy,0,180,radius);
  fillellipse(midx,midy,10,10);
```

```c
for(th=180;th>=0;th--)
{
/*Obtain Values from Microcontroller*/
outportb(0x3Fb,0x80);
outportb(0x3F8,0x0c);
outportb(0x3Fb,0x03);
        do{
                a=inportb(0x3Fd) & 0x01;
        }while(a!=0x01);
        c=inportb(0x3F8);
        r=c;
        /*Plot the points*/
        plotsquare(r,th);
}
  /* clean up */
  getch();
  closegraph();
}
void plotsquare(int r,float th)
{
        int x,y;
        th=3.142*th/180;
        x=(r*cos(th))+320;
        y=480-(r*sin(th));
        line(x+1,y+1,x+1,y-1);
        line(x+1,y-1,x-1,y-1);
        line(x-1,y-1,x-1,y+1);
        line(x-1,y+1,x+1,y+1);
}
```