تصميم انسان آلي للكشف عن المتفجرات الحرارية

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الخلاصة

(   )

.1

.

(NTC)

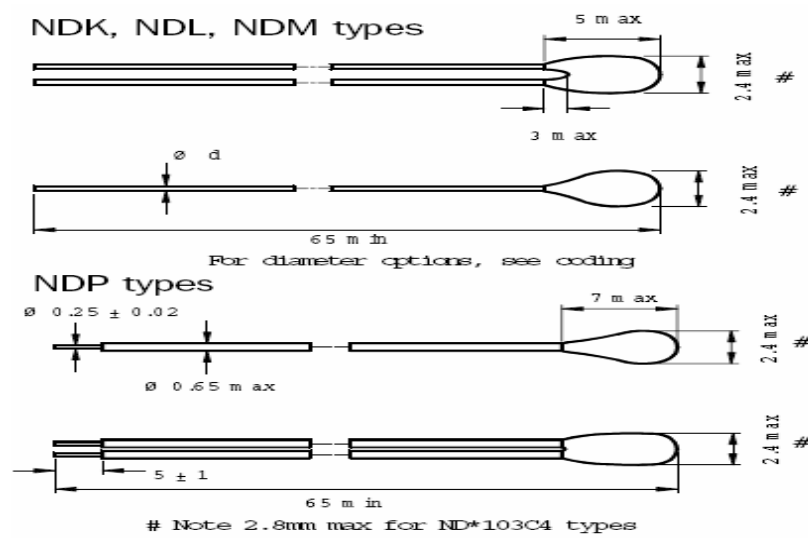(led)   (lm324n)   (IC)
(250متر)

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.(2006,

.(2007, .)

.2

2.1

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2.2

(Portal Design System)

12 .

2.**3**

chip

.(**Dr. james,2003**)

Fig(1) : NTC

2.4

.   250

2.5

(Jone smith,2002)

2.6   **LM324**

Lm324

3   35   (Hego,2003)

Fig(2): LM324
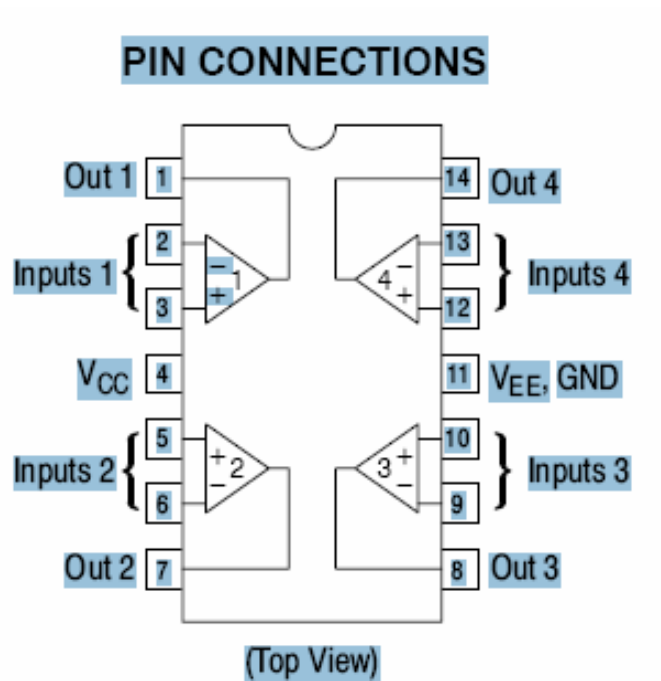
3.

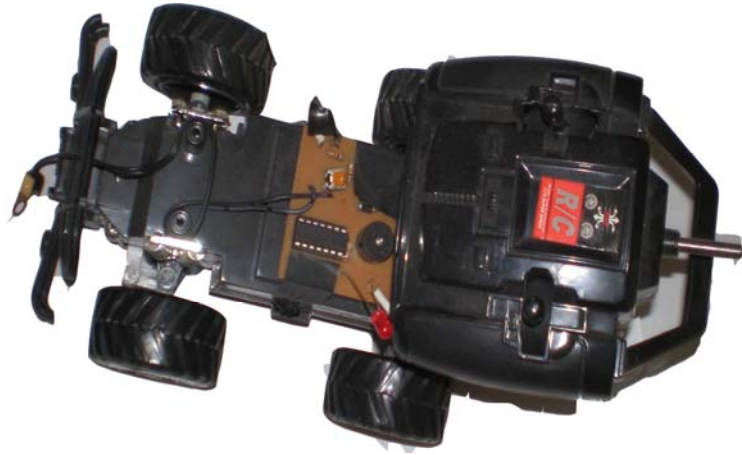.   ,   (
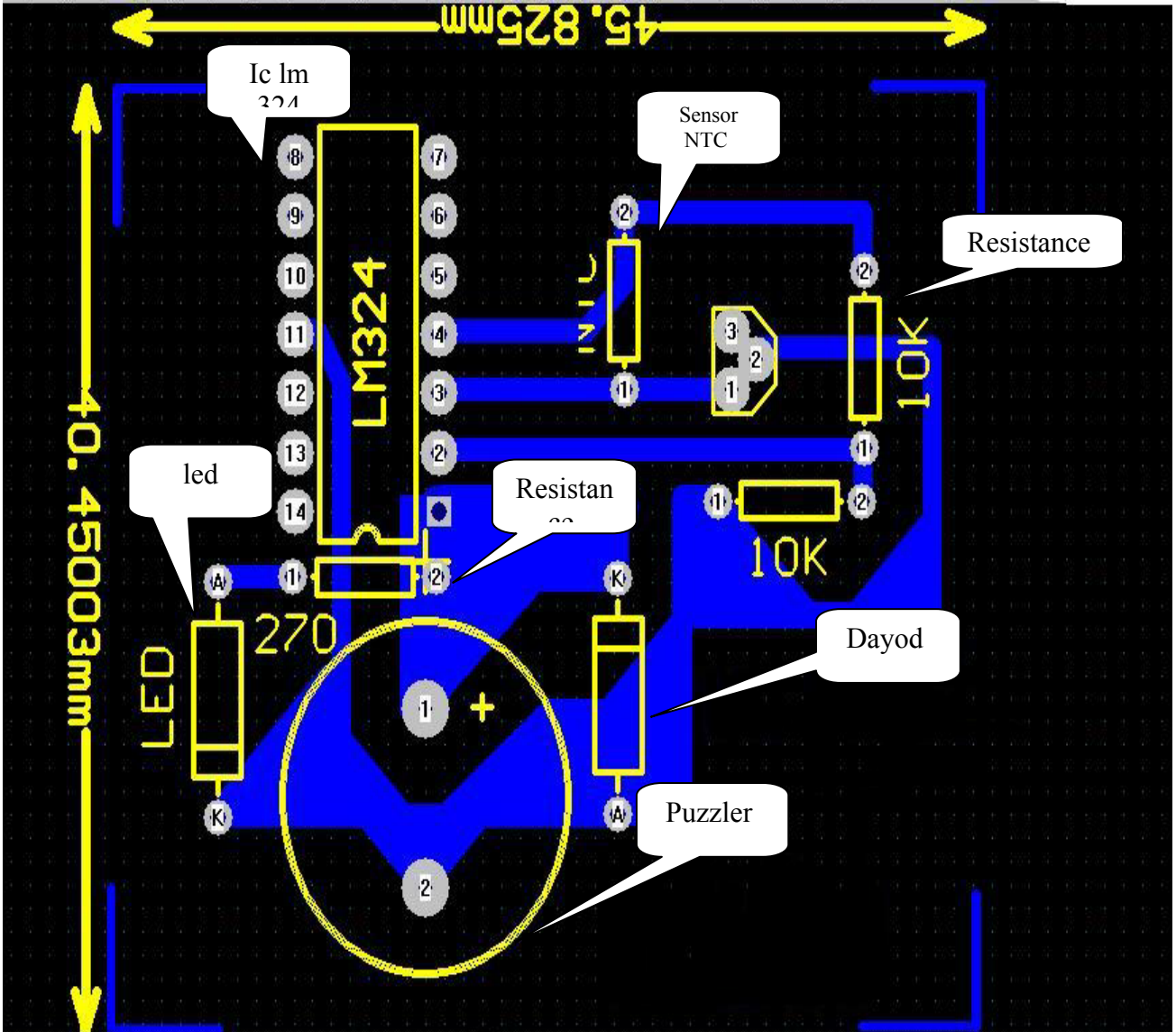
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(IC lm324)

3   (Led)   (Buzzer).

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3.1 الخريطة الكهربائية ومكوناتها

Fig(4): Electrical Map of Proposed system

3.1.1 مكونات الخريطة الكهربائية

أ. المتحسس الحراري من نوع (NTC)

ب. مقاومة متغيرة

ت. مقاومة 2ك

ث. دايود

ج. ضوء (LEAD)

ح. مقاومة 270 ك

. (buzzer)

3.1.2

IC)　　p4　　　　　　　　　　(NTC)　　　　　　　　　　　　.

.　　　　　　　　　　　　　(lm324

‚ 1　　　10　　　　　　　　　　　　　　　　　　　　.

1　　　10　　　　　　　　　　　(IC lm324)　p3　　　　　.

.(IC Lm324)　　P2　　　　　　　　　　　2　　　10

A　　　2　　　　　　　　　　　　p2　　　.

(IC Lm324)　　　P1　‚ (led)　　K　　　(Buzzer)　　p2

.(led)　　　A　　　　k　　　(Buzzer)　　p1

3.2

y　　　x　　　　　　) Input Box

((1998‚　　)

start

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```
unit URobot;
{TrackEater - The robot eats the track as it follows it}
interface
uses
  Windows, Messages, SysUtils, Classes, Graphics, Controls, Forms, Dialogs,
  ExtCtrls, StdCtrls, jpeg, MPlayer;
const
  maxpoints=10000;   {maximum track length}
type
  TForm1 = class(TForm)
    StartBtn: TButton;
    Image1: TImage;
    Robo: TShape;
    m1: TMediaPlayer;
    procedure Paintbox1MouseDown(Sender: TObject; Button: TMouseButton;
Shift: TShiftState; X, Y: Integer);
    procedure Paintbox1MouseMove(Sender: TObject; Shift: TShiftState; X,Y:
Integer);
    procedure Paintbox1MouseUp(Sender: TObject; Button: TMouseButton;Shift:
TShiftState; X, Y: Integer);
    procedure FormActivate(Sender: TObject);
```

```pascal
    procedure StartBtnClick(Sender: TObject);
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
    Drawing:boolean; {Flag set by mousedown, tested by Mousemove, reset by
Mouseup}
    saved:array of TPoint; {saved track points}
    count:integer; {Current nbr of points}
    ex,ey:integer;
  end;
var
  Form1: TForm1;
 implementation
{$R *.DFM}
procedure TForm1.FormActivate(Sender: TObject);
{Initialization}
begin
  drawing:=false;
  setlength(saved,maxpoints);
  count:=0;
  doublebuffered:=true;  {to prevent flicker}
end;
procedure TForm1.Paintbox1MouseDown(Sender: TObject; Button:
TMouseButton;
  Shift: TShiftState; X, Y: Integer);
{User pushed mouse button}
begin
  Drawing:=true;  {Set flag}
  canvas.moveto(x,y);   {move pen position to the point}
  canvas.pen.width:=2;  {make a fairly wide track}
  inc(count);
  saved[count]:=point(x,y);
end;
procedure TForm1.Paintbox1MouseMove(Sender: TObject; Shift: TShiftState;
X,Y: Integer);
{Called when mouse moves}
begin
  If drawing then
 { while( point(x,y)<> 10) do }
  Begin
   canvas.lineto(x,y);  {draw a line segment}
   sleep(10);        {wait 10 ms}
   inc(count);         {save the new point}
   saved[count]:=point(x,y);
   ex:=x;
   ey:=y;
  end;
end;
```

```
procedure TForm1.Paintbox1MouseUp(Sender: TObject; Button:
TMouseButton; Shift: TShiftState; X, Y: Integer);
{Called when mouse button is released}
begin
  Drawing:=false;  {stop drawing}
  Robo.left:=saved[1].x-Robo.Width div 2;  {move robot to start point}
  Robo.top:=saved[1].y-Robo.Height div 2;
end;
procedure TForm1.StartBtnClick(Sender: TObject);
{Robot master clicked the start button}
var
  i:integer;
  s:string;
begin
  {Move the robot around the path}
  for i:= 2 to count do
  Begin
    Robo.left:=saved[i].x-Robo.width div 2;
    Robo.top:=saved[i].y-Robo.height div 2;
    application.processmessages;
    sleep(10);
  end;
  count:=0;
  s:= 'x='+inttostr(ex)+',y='+inttostr(ey)   ;
  ShowMessage (  s  );
end;
procedure TForm1.FormCreate(Sender: TObject);
var
l,k:integer;
begin
{m:=strtoint(InputBox ('entering the number of bomb','eneter ','  '));
for f:= 1 to m do
begin
h:=strtoint(InputBox ('entering the values of bomb','eneter x','  ')) ;
p:=strtoint(InputBox ('entering the values of the bomb ','eneter y','  '));
canvas.Pixels(h,p)=10 ;
 end ;
 }
l:=strtoint(InputBox ('entering the values','eneter x','  ')) ;
k:=strtoint(InputBox ('entering the values','e robo.Visible := true;
neter y','  '));
 Robo.Left :=l;
 Robo.Top :=  k;
End;
End.
```

.4

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.(1)

X,Y

(   )   start

X,Y

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(1)

Select appropriate part number below for resistance and temperature tolerance desired

R$_{25°C}$	MATERIAL SYSTEM	± .2°C −20°C to +50°C	± .1°C 0°C to 70°C	± .2°C 0°C to 70°C
100	Q	EC95Q101U		
300	Q	EC95Q301U		
1000	R	EC95R102U		EC95R102W
1000	S	EC95S102U		EC95S102W
2252	F	EC95F232U	EC95F232V	EC95F232W
3000	F	EC95F302U	EC95F302V	EC95F302W
5000	F	EC95F502U	EC95F502V	EC95F502W
10000	F	EC95F103U	EC95F103V	EC95F103W
10000	Y	EC95Y103U	EC95Y103V	EC95Y103W
30000	H	EC95H303U	EC95H303V	EC95H303W
50000	G	EC95G503U	EC95G503V	EC95G503W
100000	G		EC95G104V	EC95G104W

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microprocessor   ،

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المصادر

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 Hego, " Fliter Literature Distribution Center for ON Semiconductor", 2003

http://www.onsemi.com/orderlit

http://www.yahoo.com/best path search & shortest path algorithm

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