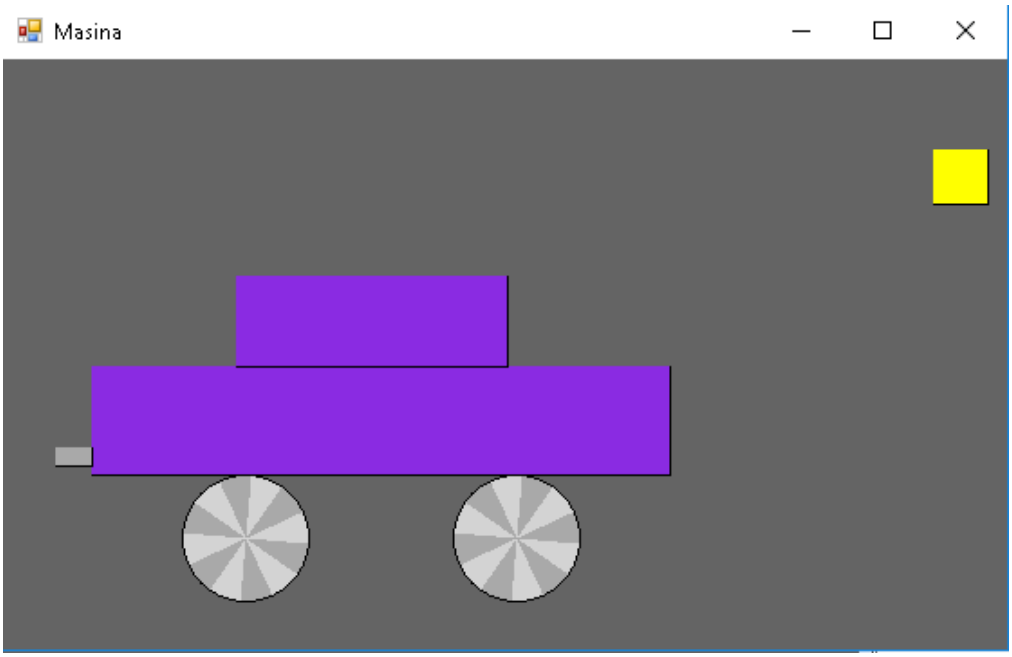
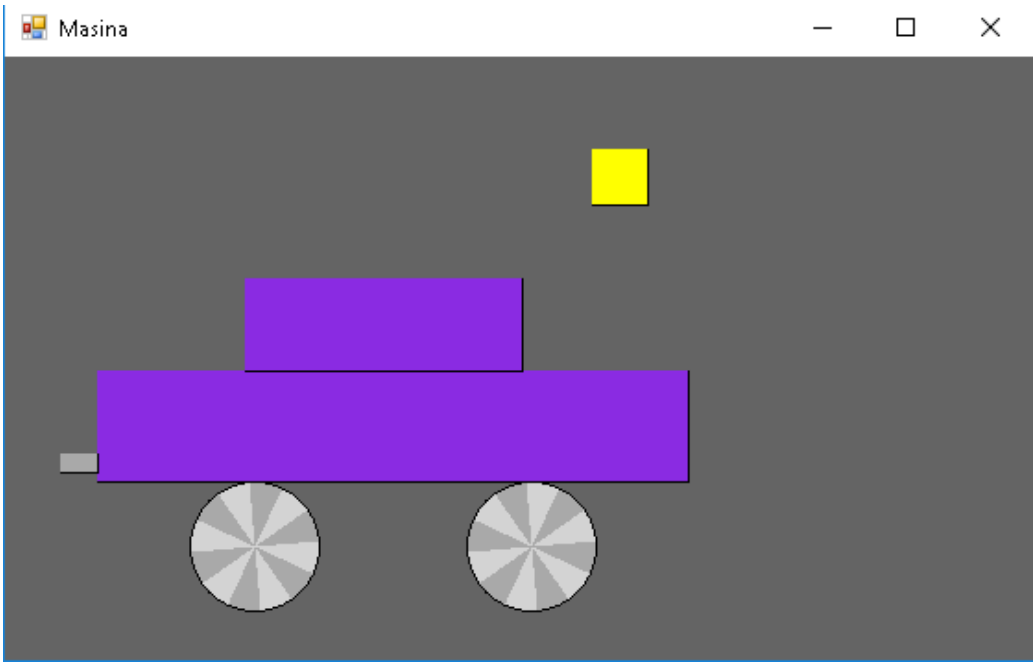
Masina in miscare

Pentru reazlizarea acestui program am construit clase cu mai multe obiecte, pentru a forma o imagine a unei masini ale carei roti se invart iar, deasupra se poate observa „un punct” de lumina care la randul lui se deplaseaza in partea opusa rotilor masinii pentru a scoate in eidenta miscarea.





COD:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace WindowsFormsApplication11
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
        System.Drawing.Graphics Desen;
        System.Drawing.Pen negru;
        System.Drawing.SolidBrush gri;
        System.Drawing.Pen albastru;
        System.Drawing.SolidBrush blu;
        System.Drawing.SolidBrush radiera;

        public ventil vent1;
        public ventil vent2;

        public drep dr1;
        public drep dr2;
        public drep dr3;

        System.Drawing.Graphics desen;
        dr[] drr;
        int nr_c, i;

        System.Random nr;
        float alfa;

        public class ventil
        {
            float x0;
            float y0;
            float w;

            public void setval(float alfa_i, System.Drawing.Graphics zona_des,
System.Drawing.Pen creion, System.Drawing.SolidBrush gri, System.Drawing.SolidBrush
radiera)
            {
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i +30, 30);
                zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 60, 30);
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i + 90, 30);
                zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 120, 30);
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i + 150, 30);
                zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 180, 30);
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i + 210, 30);
                zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 240, 30);
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i + 270, 30);
                zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 300, 30);
                zona_des.FillPie(gri, x0, y0, w, w, alfa_i + 330, 30);
```

```
            zona_des.FillPie(radiera, x0, y0, w, w, alfa_i + 360, 30);
            zona_des.DrawEllipse(creion, x0, y0, w, w);

        }
        public void init_vent(float pozx, float pozy, float lat, float inalt)
        {
            x0 = pozx;
            y0 = pozy;
            w = lat;
        }
    }

    private void Form1_Load(object sender, EventArgs e)
    {
        negru = new System.Drawing.Pen(System.Drawing.Color.Black);
        gri = new System.Drawing.SolidBrush(System.Drawing.Color.DarkGray);
        albastru = new System.Drawing.Pen(System.Drawing.Color.BlueViolet);
        blu = new System.Drawing.SolidBrush(System.Drawing.Color.BlueViolet);
        radiera = new System.Drawing.SolidBrush(System.Drawing.Color.LightGray);

        Desen = this.CreateGraphics();
        nr = new System.Random();
        vent1 = new ventil();
        vent1.init_vent(100, 230, 70, 75);
        vent2 = new ventil();
        vent2.init_vent(250, 230, 70, 75);

        dr1 = new drep();
        dr1.init_drep(50, 170, 320, 60);
        dr2 = new drep();
        dr2.init_drep(130, 120, 150, 50);
        dr3 = new drep();
        dr3.init_drep(30, 215, 20, 10);

    }

    private void timer1_Tick(object sender, EventArgs e)
    {
        vent1.setval(alfa + 15, Desen, negru, gri, radiera);
        vent2.setval(alfa + 45, Desen, negru, gri, radiera);

        alfa += 10;
        if (alfa > 360)
            alfa = 0;

        dr1.setval(10, Desen, negru, blu, radiera);
        dr2.setval(10, Desen, negru, blu, radiera);
        dr3.setval(10, Desen, negru, gri, radiera);


    }
    public class drep
    {
        float x0;
        float y0;
        float x1;
        float y1;

        public void setval(float nr, System.Drawing.Graphics zona_des,
System.Drawing.Pen Mar, System.Drawing.SolidBrush Maro, System.Drawing.SolidBrush
radiera)
        {
```

```
            zona_des.DrawRectangle(Mar, x0, y0, x1, y1);

            zona_des.FillRectangle(Maro, x0, y0, x1, y1);
        }
        public void init_drep(float pozx, float pozy, float pozx1, float pozy1)
        {
            x0 = pozx;
            y0 = pozy;
            x1 = pozx1;
            y1 = pozy1;

        }
    }
    void sterg_desen()
    {
        desen.Clear(this.BackColor);
    }
    void creare_drr()
    {
        nr_c = 1;
        drr = new dr[nr_c];
        for (i = 0; i < nr_c; i++)
        {

            drr[i] = new dr();
            drr[i].init_dr(i, this.Width, this.Height - 270);
        }
    }

    private void Form1_Activated(object sender, EventArgs e)
    {
        desen = this.CreateGraphics();
        creare_drr();
    }

    private void Form1_Paint(object sender, PaintEventArgs e)
    {
        desen = this.CreateGraphics();
        creare_drr();
    }

    void trasez_drr()
    {
        for (i = 0; i < nr_c; i++)
            drr[i].desenez(desen, this.Width - 50, this.Height - 80);
    }
    void depl_drr()
    {
        for (i = 0; i < nr_c; i++)
            drr[i].deplasez(this.Width - 50, this.Height - 80);
    }

    private void timer2_Tick(object sender, EventArgs e)
    {
        sterg_desen();
        trasez_drr();
        depl_drr();
    }

    public class dr
    {
        public Int32 pozX, pozY, vX, vY, accX, accY, raza;
```

```
            public System.Drawing.Pen negru;
            System.Drawing.SolidBrush galben;


            public int desenez(System.Drawing.Graphics zona_des, int lung, int lat)
            {
                zona_des.DrawRectangle(negru, pozX, pozY, raza, raza);
                zona_des.FillRectangle(galben, pozX, pozY, raza, raza);
                return 1;
            }
            public void deplasez(int lung, int lat)
            {
                System.Random nr = new System.Random();
                pozX += vX;
                if ((pozX > lung - raza - 40) || (pozX < 0))
                {
                    raza = 30;
                    vX = -vX;
                }

            }

            public void init_dr(int r, int lung, int lat)
            {
                System.Random nr = new System.Random(r);
                pozX = 5 + nr.Next(lung - 50);
                pozY = 50 ;
                vX = 50 + nr.Next(20);

                negru = new System.Drawing.Pen(System.Drawing.Color.Black);
                galben = new System.Drawing.SolidBrush(System.Drawing.Color.Yellow);
            }

        }
    }

}
```