

Roborace 2013



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Sponsors

Partners and sponsors of competitions in Chernivtsi became mall "DEPOt" and companies: Goodahead, MagneticOne, network computer shops "Digital World" Nimpha ", newspaper " Molodyj Bukovinets " " Chernivtsi National University Y.Fedkovich " "Association of Robotics"



Громадська організація
**АСОЦІАЦІЯ
РОБОТОТЕХНІКИ**



Purpose of competition

The purpose of "Roborace" is to encourage creative, intellectual, and spiritual development of young people.



Teams

In the third round, take part 21 teams from Ternopil, Lviv, Ivano-Frankivsk, Chernivtsi, Kyiv and Kovrov (Russia).



Game rules

- Participants should prepare robot, based on ready chassis or develop the new one.
- Teams should equip power subsystem, and "Artificial intelligence", which will manage the movement of machines, to recognize the route, select optimal speed and bypass obstacles.

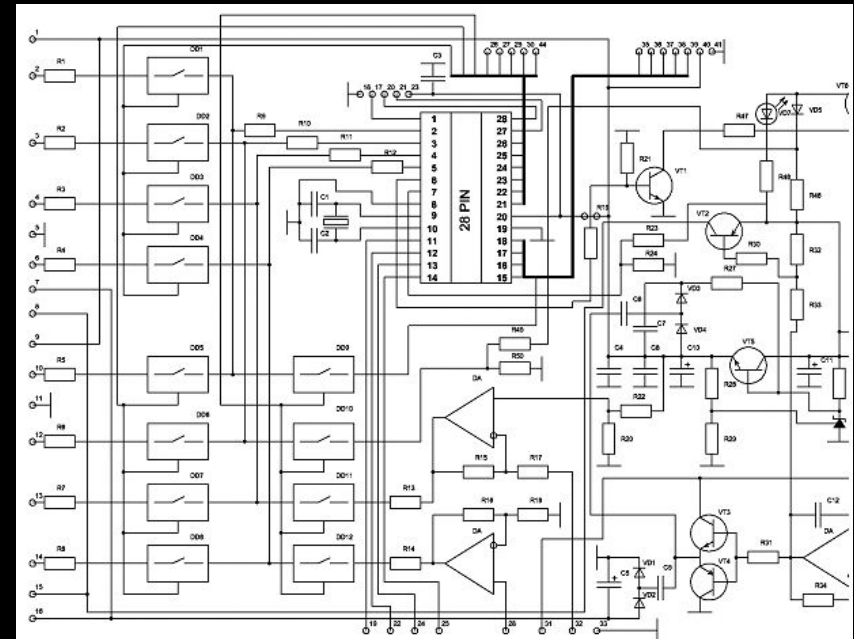


- Teams develop their own algorithm of the device choose the components and design interaction of these subsystems provide printed circuit board mounting of components involved and the creation of a special software for device management.

```

019 unsigned char vSt=0,vByte=0;
020
021 int main(void)
022 {
023     DDRB=0xff;
024     DDRC=0xff;
025     DDRE=0x00;
026     PORTB=0x00;
027     PORTC=0x00;
028     PORTD=0xff;
029
030     sei();
031
032     TCCR0=(1<&t;&t;CS00)|(1<&t;&t;CS01);
033     TIMSK|=_BV(TOIE0);
034
035     SetSpeed(1);
036
037     unsigned char i=0;
038
039     while(1)
040     {
041         vByte=PIIND;
042         if(vSt==0)
043             if(vByte&1)
044             {
045                 SetSpeed(1);
046                 vByte=vByte&~1;
047                 //if(vByte&1) TurnLR((vByte&1),cMovMin); else TurnLR((vByte&1),0);
048                 TurnLR((vByte&1),cMovMin);
049             }
050         else
051         {
052             SetSpeed(0);
053             vSt=1;
054             vByte=vByte&~1;
055             //if(vByte&1) TurnLR((vByte&1),0); else TurnLR((vByte&1),0);
056             TurnLR((vByte&1),0);
057             if(PrelhellPos==0) PrelhellPos=wheelPos;
058         }
059     }
060     else
061         if(vByte&1)
062         {
063             SetSpeed(1);
064             vSt=0;
065             PrelhellPos=0;

```



- In the shortest period of time the robot must pass a certain number of laps route.
- Tour winner is the team which took less time for the route.



The winner of Roborace 2013



The winner of the third round of the third season of "Roborace" 2013 was the team TopNode (Ivano-Frankivsk). In second place Robot-711 (Ivano-Frankivsk), the third - Topnode-2 (Ivano-Frankivsk).

Gallery





Thank you for your
attention

Thanks **Thanks**

Thanks **Thanks** Thank you

Thanks **you** **Thanks** **Thanks**

Thank you

