

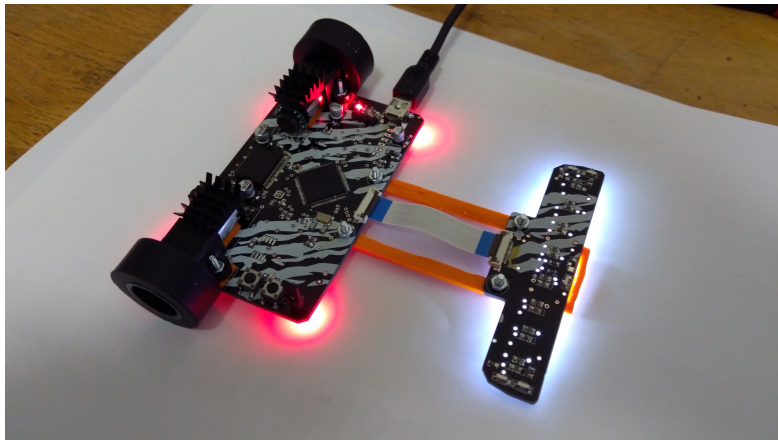
Stručne o súťažnej robotike

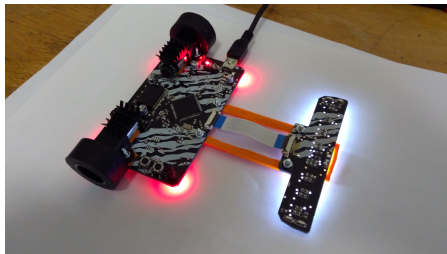
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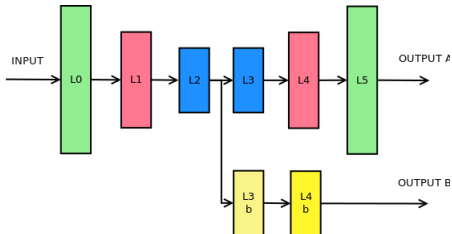
Fakulta riadenia a informatiky

Stručne o súťažnej robotike





- procesor : ARM Cortex M7, 216MHz
- senzory : 8x 500nm, 3xIR, gyroskop
- motory : pololu, 1:30, micro metal HP



- ovládače : motory, senzory
- operačný systém : hard real time, max 5ms odozva
- inteligencia : PID, PLL, neurónové siete, reinforcement learning

```

17
18 int Arcade::init()
19 {
20     IRLEnvironment::init();
21
22     obstacle_density = 0.1;
23     actions_count = 2;
24
25     geometry.w = 19;
26     geometry.h = 5;
27     geometry.d = 1;
28
29     x = 1;
30     y = 0;
31     move_state = 0;
32
33     screen.resize(geometry.h);
34     for (unsigned int i = 0; i < screen.size(); i++)
35         screen[i].resize(geometry.w);
36
37     for (unsigned int j = 0; j < screen.size(); j++)
38         for (unsigned int i = 0; i < screen[j].size(); i++)
39             screen[j][i] = 0.0;
40
41     state.init(geometry);
42
43     iteration = 0;
44 }
    
```



<https://github.com/michalnand/robotics>

https://github.com/michalnand/machine_learning

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