

ŘEŠENÍ ÚLOH

Úkol A)

```
1 // Srdce
2 byte image[8][8] = {
3     {0,0,0,0,0,0,0,0},
4     {0,1,1,0,0,1,1,0},
5     {1,0,0,1,1,0,0,1},
6     {1,0,0,0,0,0,0,1},
7     {1,0,0,0,0,0,0,1},
8     {0,1,0,0,0,0,1,0},
9     {0,0,1,0,0,1,0,0},
10    {0,0,0,1,1,0,0,0}};
11
12 // Smajlík
13 byte image[8][8] = {
14     {0,0,1,1,1,1,0,0},
15     {0,1,0,0,0,0,1,0},
16     {1,0,1,0,0,1,0,1},
17     {1,0,0,0,0,0,0,1},
18     {1,0,1,0,0,1,0,1},
19     {1,0,0,1,1,0,0,1},
20     {0,1,0,0,0,0,1,0},
21     {0,0,1,1,1,1,0,0}};
```

Úkol B)

```
1  const int row[8] = {
2      2, 7, 19, 5, 13, 18, 12, 16
3  };
4
5  const int col[8] = {
6      6, 11, 10, 3, 17, 4, 8, 9
7  };
8
9  // Velke srdce
10 byte image[8][8] = {
11     {0,0,0,0,0,0,0,0},
12     {0,1,1,0,0,1,1,0},
13     {1,0,0,1,1,0,0,1},
14     {1,0,0,0,0,0,0,1},
15     {1,0,0,0,0,0,0,1},
16     {0,1,0,0,0,0,1,0},
17     {0,0,1,0,0,1,0,0},
18     {0,0,0,1,1,0,0,0}};
19
20 // Male srdce
21 byte imageS[8][8] = {
22     {0,0,0,0,0,0,0,0},
23     {0,0,0,0,0,0,0,0},
24     {0,0,0,1,0,1,0,0},
25     {0,0,1,0,1,0,1,0},
26     {0,0,1,0,0,0,1,0},
27     {0,0,0,1,0,1,0,0},
28     {0,0,0,0,1,0,0,0},
29     {0,0,0,0,0,0,0,0}};
30
31 void setup(){
32     for(int i = 0; i < 8; i++){
33         pinMode(col[i], OUTPUT);
34         pinMode(row[i], OUTPUT);
35         digitalWrite(col[i], HIGH);
36         digitalWrite(row[i], LOW);
37     }
38 }
39
40 void loop(){
41     // Zobrazení vždy po dobu 100 iterací
42     for(int i = 0; i < 100; i++){
```

```
43     refreshScreen(image);
44 }
45
46 for(int i = 0; i < 100; i++){
47     refreshScreen(imageS);
48 }
49 }
50
51
52 void refreshScreen(unsigned char dat[8][8]){
53     for(int j = 0; j<8;j++){
54         digitalWrite(col[j], LOW);
55         for(int k = 0; k<8; k++){
56             digitalWrite(row[k], dat[k][j]);
57         }
58         delay(1);
59         Clear();
60     }
61 }
62
63 void Clear(){
64     for(int i = 0; i<8; i++){
65         digitalWrite(row[i],LOW);
66         digitalWrite(col[i],HIGH);
67     }
68 }
69 }
```