

```
1 using Microsoft.SPOT;
2
3 //Nowendig für Visual Studio 2015
4 namespace System.Diagnostics
5 {
6     public enum DebuggerBrowsableState
7     {
8         Never,
9         Collapsed,
10        RootHidden
11    }
12 }
13 class Program
14 {
15     private BrainPad.Image imageAccel = new BrainPad.Image(60, 60);
16     private BrainPad.Image imageAccel_M = new BrainPad.Image(12, 12);
17     private BrainPad.Image imageAccel_N = new BrainPad.Image(16, 16);
18     private BrainPad.Image imageAccel_NO = new BrainPad.Image(16, 16);
19     private BrainPad.Image imageAccel_O = new BrainPad.Image(16, 16);
20     private BrainPad.Image imageAccel_SO = new BrainPad.Image(16, 16);
21     private BrainPad.Image imageAccel_S = new BrainPad.Image(16, 16);
22     private BrainPad.Image imageAccel_SW = new BrainPad.Image(16, 16);
23     private BrainPad.Image imageAccel_W = new BrainPad.Image(16, 16);
24     private BrainPad.Image imageAccel_NW = new BrainPad.Image(16, 16);
25
26     private int newImage;
27     private double x, y, z;
28
29     public void BrainPadSetup()
30     {
31         getImage(imageAccel,                                     ↗
32             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel);
33         getImage(imageAccel_M,                                  ↗
34             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_M);
35         getImage(imageAccel_N,                                  ↗
36             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_N);
37         getImage(imageAccel_NO,                                 ↗
38             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_NO);
39         getImage(imageAccel_O,                                  ↗
40             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_O);
41         getImage(imageAccel_SO,                                 ↗
42             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_SO);
43         getImage(imageAccel_S,                                  ↗
44             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_S);
45         getImage(imageAccel_SW,                                 ↗
46             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_SW);
47         getImage(imageAccel_W,                                  ↗
48             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_W);
49         getImage(imageAccel_NW,                                 ↗
50             BrainPad_Projekt_05.Properties.Resources.BinaryResources.Accel_NW);
51
52         newImage = 0;
53         BrainPad.Display.DrawText(40, 10, "Accelerometer",
54             BrainPad.Color.White);
55         BrainPad.Display.DrawImage(50, 34, imageAccel);
56     }
57 }
```

```
46
47     public void BrainPadLoop()
48     {
49         x = BrainPad.Accelerometer.ReadX();
50         y = BrainPad.Accelerometer.ReadY();
51         z = BrainPad.Accelerometer.ReadZ();
52
53         if (System.Math.Abs(x) <= 0.25 && System.Math.Abs(y) <= 0.25)
54             newImage = 0;
55         if (System.Math.Abs(x) <= 0.25 && y < -0.25)
56             newImage = 7;
57         if (System.Math.Abs(x) <= 0.25 && y > 0.25)
58             newImage = 3;
59         if (x < -0.25 && System.Math.Abs(y) < 0.25)
60             newImage = 1;
61         if (x > 0.25 && System.Math.Abs(y) < 0.25)
62             newImage = 5;
63         if (x > 0.25 && y > 0.25)
64             newImage = 4;
65         if (x > 0.25 && y < -0.25)
66             newImage = 6;
67         if (x < -0.25 && y > 0.25)
68             newImage = 2;
69         if (x < -0.25 && y < -0.25)
70             newImage = 8;
71
72         show();
73         BrainPad.Wait.Seconds(1.0);
74     }
75
76     private void getImage(BrainPad.Image image, ↗
77         BrainPad_Projekt_05.Properties.Resources.BinaryResources resource)
78     {
79         int info;
80         byte[] data;
81         BrainPad.Color color = new BrainPad.Color();
82
83         data = (byte[])ResourceUtility.GetObject ↗
84             (BrainPad_Projekt_05.Properties.Resources.ResourceManager, ↗
85             resource);
86         info = data[0xA];
87         for (int Y = image.Height - 1; Y >= 0; Y--)
88         {
89             for (int X = 0; X < image.Width; X++)
90             {
91                 byte h = data[info++];
92                 byte n = data[info++];
93                 color.B = (byte)(h & 0x1f);
94                 color.G = (byte)(((h & 0xe0) >> 5) + ((n & 0x07) << 3));
95                 color.R = (byte)((n & 0xf8) >> 3);
96                 image.SetPixel(Y, X, color);
97             }
98         }
99     }
100
101     private void show()
```

```
99     {
100         if(x < 0)
101             BrainPad.Display.DrawText(5, 110, "X:" + x.ToString
102             ("F2"),BrainPad.Color.White);
103         else
104             BrainPad.Display.DrawText(5, 110, "X:+" + x.ToString("F2"),
105             BrainPad.Color.White);
106         if(y < 0)
107             BrainPad.Display.DrawText(60, 110, "Y:" + y.ToString("F2"),
108             BrainPad.Color.White);
109         else
110             BrainPad.Display.DrawText(60, 110, "Y:+" + y.ToString("F2"),
111             BrainPad.Color.White);
112         if(z < 0)
113             BrainPad.Display.DrawText(112, 110, "Z:" + z.ToString("F2"),
114             BrainPad.Color.White);
115         else
116             BrainPad.Display.DrawText(112, 110, "Z:+" + z.ToString("F2"),
117             BrainPad.Color.White);
118         BrainPad.Display.DrawImage(50, 34, imageAccel);
119         switch (newImage)
120         {
121             case 0:
122                 BrainPad.Display.DrawImage(50 + 24, 34 + 24, imageAccel_M);
123                 break;
124             case 1:
125                 BrainPad.Display.DrawImage(50 + 22, 34 + 0, imageAccel_N);
126                 break;
127             case 2:
128                 BrainPad.Display.DrawImage(50 + 39, 34 + 5, imageAccel_NO);
129                 break;
130             case 3:
131                 BrainPad.Display.DrawImage(50 + 44, 34 + 22, imageAccel_O);
132                 break;
133             case 4:
134                 BrainPad.Display.DrawImage(50 + 39, 34 + 39, imageAccel_SO);
135                 break;
136             case 5:
137                 BrainPad.Display.DrawImage(50 + 22, 34 + 44, imageAccel_S);
138                 break;
139             case 6:
140                 BrainPad.Display.DrawImage(50 + 5, 34 + 39, imageAccel_SW);
141                 break;
142             case 7:
143                 BrainPad.Display.DrawImage(50 + 0, 34 + 22, imageAccel_W);
144                 break;
145             case 8:
146                 BrainPad.Display.DrawImage(50 + 5, 34 + 5, imageAccel_NW);
147                 break;
148         }
149     }
150 }
```