



TD06 Correction

Matière : DEVELOPPEMENT MOBILE AVANCE

Classes : SEM31

```
package com.mag;
//imports
public class MainActivity extends Activity {
    private EditText edX; private EditText edY; private EditText edZ;
    private EditText edForce; private BroadcastReceiver br;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        init();
    }
    private void init() {
        edX=(EditText)findViewById(R.id.edX);
        edY=(EditText)findViewById(R.id.edY);
        edZ=(EditText)findViewById(R.id.edZ);
        edForce=(EditText)findViewById(R.id.edForce);
        ajouterEcouteur();
    }
    private void ajouterEcouteur() {
        br= new BroadcastReceiver() {
            @Override
            public void onReceive(Context context, Intent intent) {
                actualiser(intent);
            }
        };
    }
    protected void actualiser(Intent intent) {
        edX.setText(intent.getDoubleExtra("x", 0)+"");
        edY.setText(intent.getDoubleExtra("y", 0)+"");
        edZ.setText(intent.getDoubleExtra("z", 0)+"");
        DecimalFormat df = new DecimalFormat("0.000");
        String force=df.format(intent.getDoubleExtra("force", 0));
        edForce.setText(force);
    }
    private void demarrerService() {
        Intent i = new Intent(this,MagService.class);
        startService(i);
    }
    private void arreterService() {
        Intent i = new Intent(this,MagService.class);
        stopService(i);
    }
    @Override
    protected void onResume() {
        demarrerService();
        registerReceiver(br, new IntentFilter(MagService.MAGNETIQUE));
        super.onResume();
    }
}
```

```

@Override
protected void onPause() {
    arreterService();
    unregisterReceiver(br);
    super.onPause();
}

}

package com.mag;
//imports
public class MagService extends Service implements SensorEventListener {
    public static final String MAGNETIQUE = "com.mag.magnetique";
    private SensorManager smg;
    private Sensor mag;

    @Override
    public IBinder onBind(Intent intent) {
        return null;
    }
    @Override
    public void onCreate() {
        super.onCreate();
        init();
    }
    private void init() {
        smg = (SensorManager) getSystemService(SENSOR_SERVICE);
        mag = smg.getDefaultSensor(Sensor.TYPE_MAGNETIC_FIELD);
        smg.registerListener(this, mag, SensorManager.SENSOR_DELAY_UI);

    }
    @Override
    public void onDestroy() {
        smg.unregisterListener(this, mag);
        super.onDestroy();
    }
    @Override
    public void onAccuracyChanged(Sensor sensor, int accuracy) { }

    @Override
    public void onSensorChanged (SensorEvent event ) {
        if (event.sensor.getType() == Sensor.TYPE_MAGNETIC_FIELD) {
            double x = event.values[0];
            double y = event.values[1];
            double z = event.values[2];
            double force = Math.sqrt(Math.pow(x,2)+ Math.pow(y,2) + Math.pow(z,2));
            Intent i = new Intent();
            i.setAction(MAGNETIQUE);
            i.putExtra("x", x);
            i.putExtra("y", y);
            i.putExtra("z", z);
            i.putExtra("force", force);
            sendBroadcast(i);
        }
    }
}

```