

```
1 package ch.hevs.gdx2d.lunar.physics;
2
3 import com.badlogic.gdx.math.Rectangle;
4 import com.badlogic.gdx.math.Vector2;
5
6 public abstract class PhysicalObject implements Simulatable, Collisionnable {
7
8     public Vector2 position; // position
9     public Vector2 speed; // speed
10    public Vector2 acceleration; // acceleration
11    public int mass; // mass
12    public Vector2 force; // force applied on the object
13    protected Rectangle boundingBox;
14
15    public PhysicalObject(Vector2 p, Vector2 s, int m, int width, int height) {
16
17        this.position = p;
18        this.speed = s;
19        this.acceleration = new Vector2(0, 0);
20        this.force = new Vector2(0, 0);
21        this.mass = m;
22
23        this.boundingBox = new Rectangle(p.x, p.y, width, height);
24    }
25
26    @Override
27    public void step() {
28        // TODO Auto-generated method stub
29    }
30
31
32    @Override
33    public Rectangle getBoundingBox() {
34        boundingBox.setCenter(position);
35        return boundingBox;
36    }
37 }
38
```