Universidade do Minho
Escola de Engenharia
Departamento de Informática

Standard Odometer - How To

Sistemas Autónomos

Perfil Sistemas Inteligentes @ MEI/MiEI 1º/4º – 2º semestre

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Importing the lib to Robocode

- Download StandardOdometer.jar
  - https://goo.gl/jun6Sr
- Place the file in Robocode libs dir
  - Usually at C:\robocode\libs
- Go back a folder (C:\robocode) and edit the file entitled as robocode.bat
  - Change from: java -Xmx512M -cp libs/robocode.jar -XX:...
  - To: java -Xmx512M -cp libs/robocode.jar;libs/StandardOdometer.jar; -XX:…

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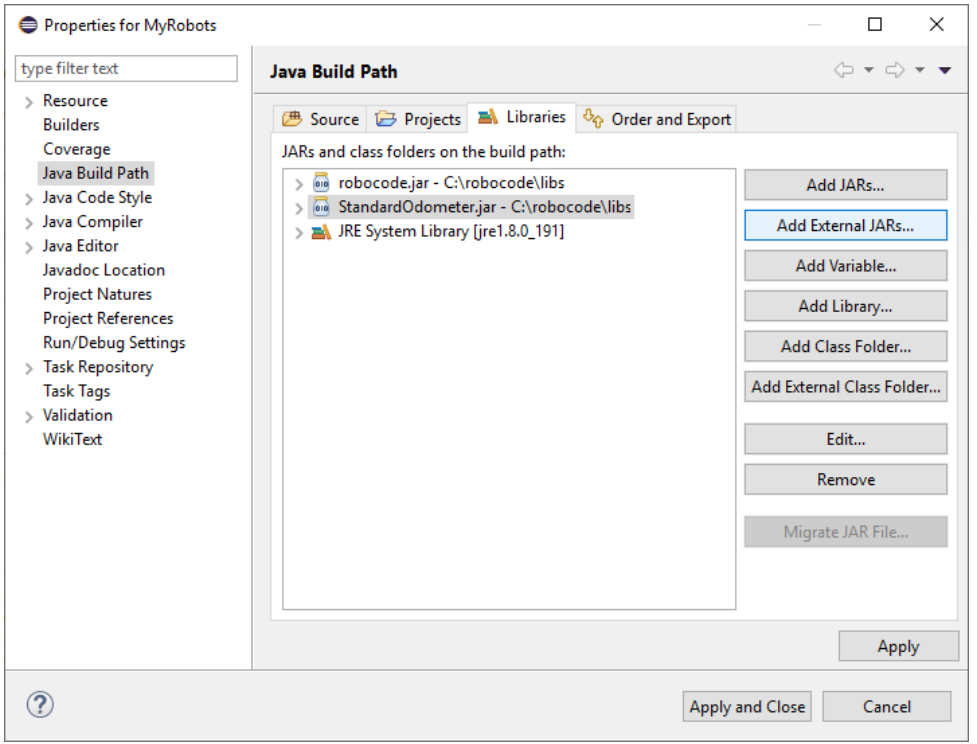
Importing the lib to the project

- Add StandardOdometer.jar to your project's buildpath



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Using the lib

- To use the lib just:

```
import standardOdometer.Odometer;
…

//** Private Instance Variable **\\
private Odometer odometer = new Odometer("IsRacing", this);
…

//** Add this inside run() **\\
addCustomEvent(odometer);
…

//** Method for handling the condition of race finished **\\
public void onCustomEvent(CustomEvent ev) {
   Condition cd = ev.getCondition();
   if (cd.getName().equals("IsRacing"))
      this.odometer.getRaceDistance();
}
```

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Importing RockQuad to Robocode

- Download RockQuad robot
  - https://goo.gl/PED2XF
- Import it in Robocode
  - Robot > Import robot or team > robots.RockQuad.jar
  - A new robot, entitled as RockQuad 1.0, should now be available
- To start a battle you must use 3 RockQuads (each one goes to a different quadrant, namely, quadrant I, II e IV) plus 1 robot to go around the RockQuads

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Let's battle!

- Each RockQuad will go to a different quadrant
- Each RockQuad paints a line, setting the limits of the polygon to go around (on each robot's console, press Paint)
- The RockQuad that goes to the first quadrant will (1) print the total perimeter of the polygon and (2) will set the perimeter as a personal property
- Your robot, expected to go around the RockQuads in the shortest possible distance, will have a new set of personal properties:
  - is_racing - reveals if the robot is racing
  - finished - reveals if the race is finished
- The race starts as soon as your robot gets to the starting position (18, 18) and finishes as soon as it arrives to that same position
- As soon as the race is finished, the properties of your robot are updated and a new one emerges, race_distance, indicating the amount of pixels it took your robot to go around the RockQuads!

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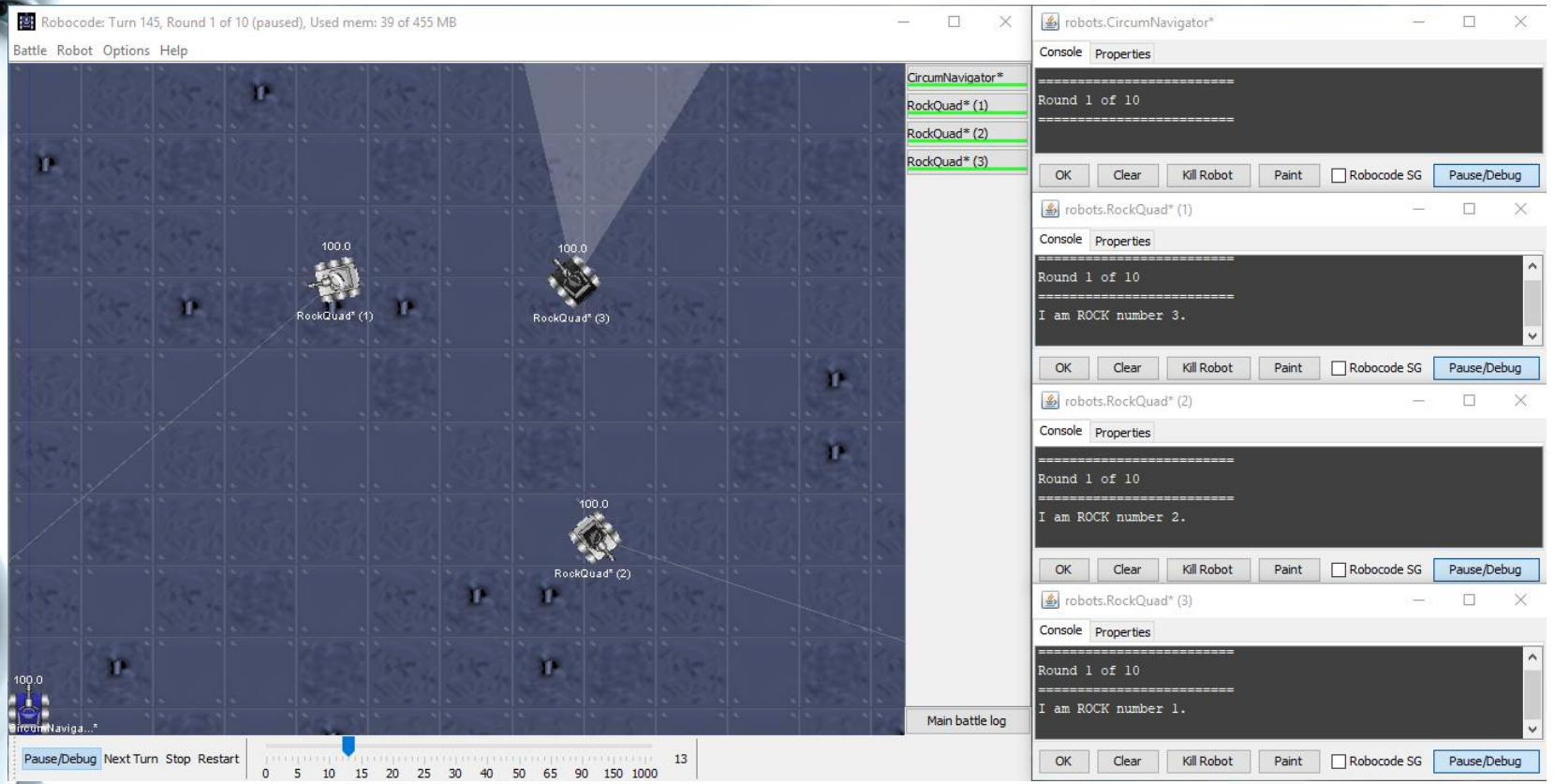

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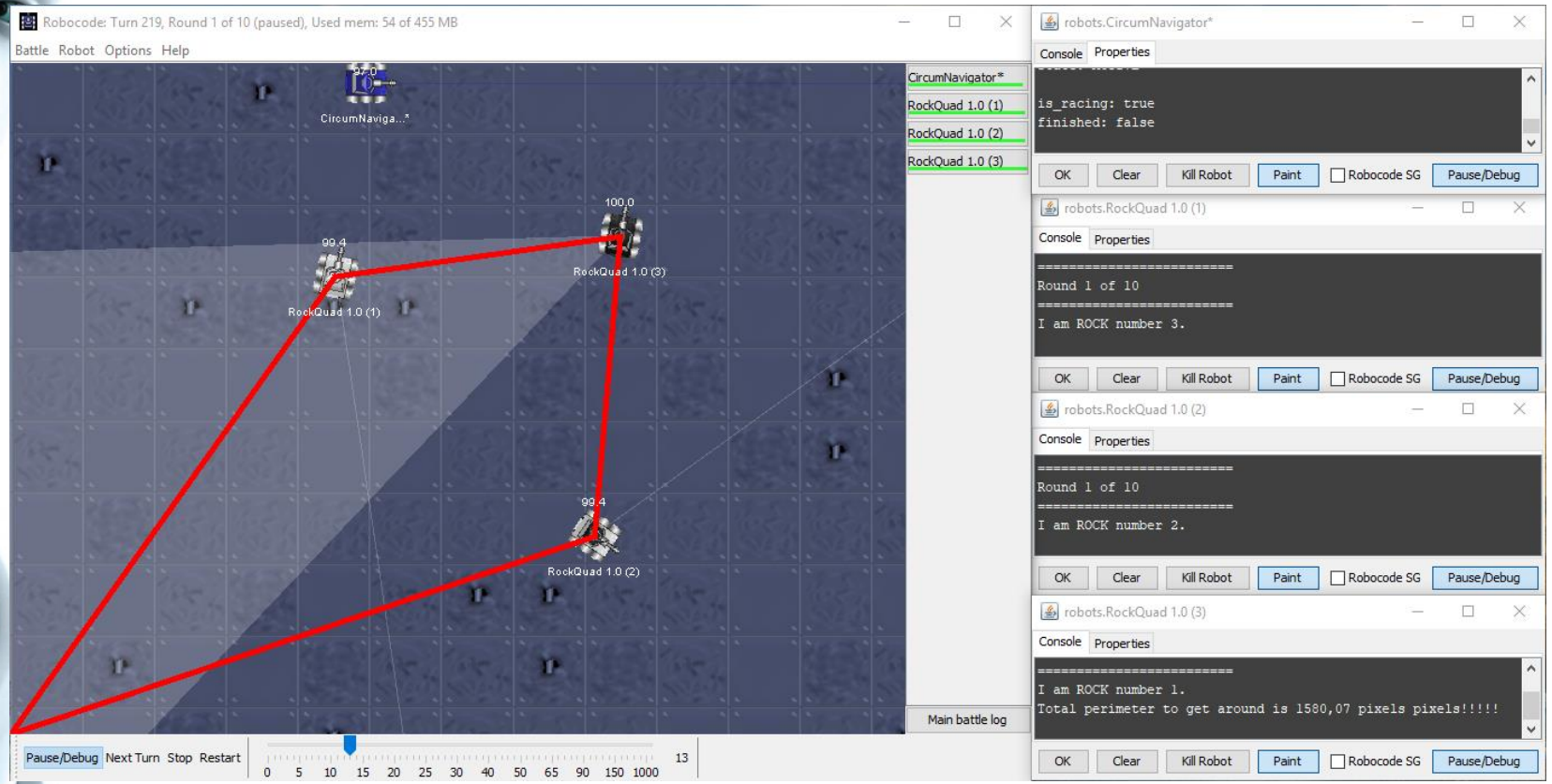
Let's battle!



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