Advanced Software Technology — ST 2014

Prof. Gerhard Kraetzschmar — Exercise Sheet 1

Distributed on Oct-05 — Due Date: Oct-07

10 **Exercise 1: Robot Building**

Using the Lego Mindstorm EV3 robot development kit provided to you in class, build a robot exactly like the one exhibited in class.

8 **Exercise 2: Software Installation**

Download the correct version of the software development system for the Lego Mindstorms EV3 kit from LEA and install the software on your personal laptop computer.

2 **Exercise 3: Some A Priori Instructions for EV3 Program Submissions**

Develop and test your program. Be ready to present it in class.
Make a different project for each task.
Name the program exactly as the program name specified in the Exercise Sheet.
Print the program (Entire View / Force Landscape) and save the printout as a PDF file.
Name the PDF file exactly as the program (with .pdf as extension).
You have to submit both the .pdf and the .ev3 files for each task.
Put all requested files into a directory names after the class, your last name, and the exercise as follows: `AST-WT2014-<Name>-ExNN`.
Zip and submit the file before the requested due date.

8 **Exercise 4: Elementary Movements**

Implement the following programs (with the obvious semantics) for the robot built in class:

`MoveStraight1m`

`TurnLeft`

`TurnRight`

`TurnBack`

6 **Exercise 5: Movements Sequences**

Implement the following programs (with the obvious semantics) for the robot built in class:

`MoveSquare1m`

`MoveSquare1m5times`