

Hands-On Session Two: Working with a simple application

- Use PLEXIL with RoboSim
- Extend the PLEXIL/Robosim interface
- Write a RoboSim plan using the new extension

Exercise: Introduction to RoboSim

- Start Robosim
 - See the handout for instructions
- Run the provided example plan
- Run the Robosim plan from the previous session
`robosim-exec -p <plan>`
 - Does it succeed?

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Extending the PLEXIL/RoboSim interface

- The extension: add a parameterized `move` command:
 - `int move(int direction)`
 - Direction: 0 = up, 1 = right, 2 = down, 3 = left
 - Return value same as for `MoveUp`, `MoveRight`, etc.
- Requires only a change to the interface adaptor
 - File:
`RobotSimulatorExec/RoboSimInterfaceAdaptor`
 - Function: `executeCommand`
 - Hints:
 - Argument to `move` is in `args` parameter
 - The following expression converts it to an integer:
`static_cast<int>(*args.begin())`

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Exercise: RoboSim plan

- Exercise: Extend the “four steps” plan from the previous session
 - Same objective as original plan
 - Use the new parameterized `move` command instead of `MoveUp`, `MoveRight`, etc.
 - Implement a loop
- Extra credit:
 - Deal with obstacles!