Robot Simulation

RobotSimulator | Simulator | Command | InputValidator | Robot | Place | Move | Left | Right | Report

RobotSimulator → Simulator: run()

loop [User Issues Command]

Simulator → Command: build(user_input)
Command --> Simulator: command_obj

Command → InputValidator: validate(user_input)
InputValidator --> Command: :status, :error_message,

Simulator → Command: valid?
Command --> Simulator: true or false

alt [Invalid input]

[Valid Input]

Simulator → Robot: receive(command_obj)
Robot → Command: perform(robot)
Command → Robot: :x_axis, :y_axis, :bearing, :message
Robot → Robot: update_position
Robot --> Simulator: :message

alt [EXIT]

Simulator → Simulator: abort

[PLACE]

Command → Place: new(user_input)
Place --> Command: self
Command → Place: perform(robot)
Place --> Command: :x_axis, :y_axis, :bearing, :message

[MOVE]

Command → Move: new(user_input)
Move --> Command: self
Command → Move: perform(robot)
Move --> Command: :x_axis, :y_axis, :message]

[LEFT]

Command → Left: new(user_input)
Left --> Command: self
Command → Left: perform(robot)
Left --> Command: :bearing, :message

[RIGHT]

Command → Right: new(user_input)
Right --> Command: self
Command → Right: perform(robot)
Right --> Command: :bearing, :message

[REPORT]

Command → Report: new(user_input)
Report --> Command: self
Command → Report: perform(robot)
Report --> Command: :message

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