CSCI 1108
Introduction to Experimental Robotics

Software environments for robotics and Simulator
Aseba Studio

Android™ Based Robotics

Nicolas Oros, Jeffrey Kritchmar

https://youtu.be/2czndpV6pWw
Robotics Software Environments

- Ubuntu (Unix OS)

- ROS (Robot Operating System) 
  www.ros.org
  Subscription architecture, wide range of services, many robots have ROS nodes

- OpenCV (Open Computer Vision) 
  opencv.org
  Most commonly computer vision package
Robotics Simulators

• Physical robots have traditionally been expensive and often require careful handling (safety)

• A common way in robotics is therefore to use programs that simulate the physical behaviour of a robot.

• Simulators are useful for initial development, but roboticists always stress their limitations
Example of open source simulator

GAZEBO
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically capture the

reordering libraries: done.
The Virtual Machine reports that the guest OS does not support mouse pointer integration in the current video mode.

starting RPC daemons:

savecore: no core dump
checking quotas: done.
clearing /tmp
kern.securelevel: 0 -> 1
creating runtime link editor directory cache.
preserving editor files.
starting network daemons: smtpd sndiod.

* *

Running Thor

* *

* *

Sun Jan 15 09:51:35 2017 thor[11145]: Log opened
starting local daemons: cron.
Sun Jan 15 09:51:35 AST 2017

OpenBSD/i386 (thor.cs.dal.ca) (ttyCO)

login: _
var a = 0
var i = 3

for i in 1:3 do
    a=a+i
end