Lab 10

Hello Robot!

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TA's: Carol Jim, James Marshall

Overview

- How to submit files from hobbes on blackboard

- Hello World... again

- Motor!

Transfer Files

- Turn in /CSCI1111/moduleXX

- tar a whole folder

  - tar -cvzf newFileName folderToTar

  - ex. tar -cvzf module04.tar ./module04/

- copy off of hobbes

  - use secure shell / putty

  - scp un@hobbes.seas.gwu.edu:~/CSCI1111/fn.tar ./

- submit on Blackboard

NXT Bricks

- Fragile

- Limited backups

- Battery powered

- One per group, turned in after each lab.

- We can load java programs on them!

- Connect motors and sensors.

Yet Another HelloWorld

- Run "HelloWorld" on the brick

- Different build process

- Have to do a lot of "magic"

- Follow worksheet

- Show me printed message

What the Heck is all this code?

- You don't need to know right now...

- But it won't hurt to have an idea:

- `import edu.gwu.Jobot.agents.st...`

  - Using someone else's java code

- `Hello extends LejosAgent`

  - We are creating a new robot controller, or "agent"

- `printLCD("Hello World");`

  - Like System.out.println()

More Obtuse Code

- `Thread.sleep(5000);`
  - Tell the robot controller to wait, otherwise it will exit to quickly to see the message

- `try { ... } catch( Exception e) {}`
  - sleep() might fail, needs try / catch
  - describes what to do if there is an error (nothing)

- `System.exit(0);`
  - Exit the program cleanly

Motor Spinning

- Turn a motor!
- Follow worksheet
- Show me the program running

Next Lab: Sensors

- Light, Sound, Touch, and Ultrasonic

- Read and display data from the sensor

- And then, a robot!