NXT Programming

by Paul Cain

Programming With Lego NXT

- Simple Motors
- Sensors
  - Color
  - Pressure
  - Ultrasonic
  - Others depending on kit
- Many Homebrew opportunities

http://upload.wikimedia.org/wikipedia/commons/c/cc/Nxt-brique.jpg

Graphical NXT Programming
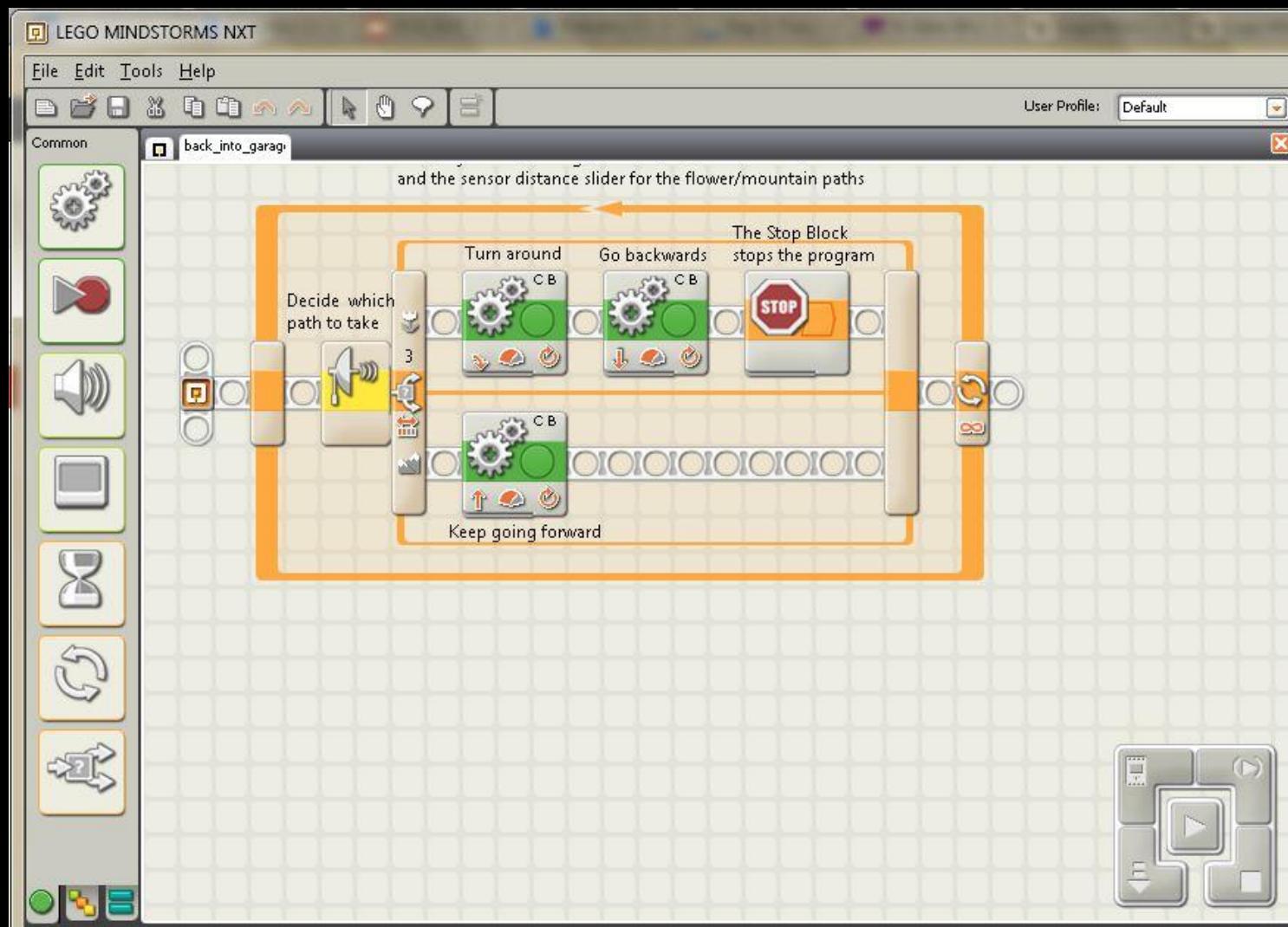
Text-Based NXT Programming

- Ada
- C++
- Objective C
- Java
- Haskell
- Perl
- Python
- MATLAB
- Many others...
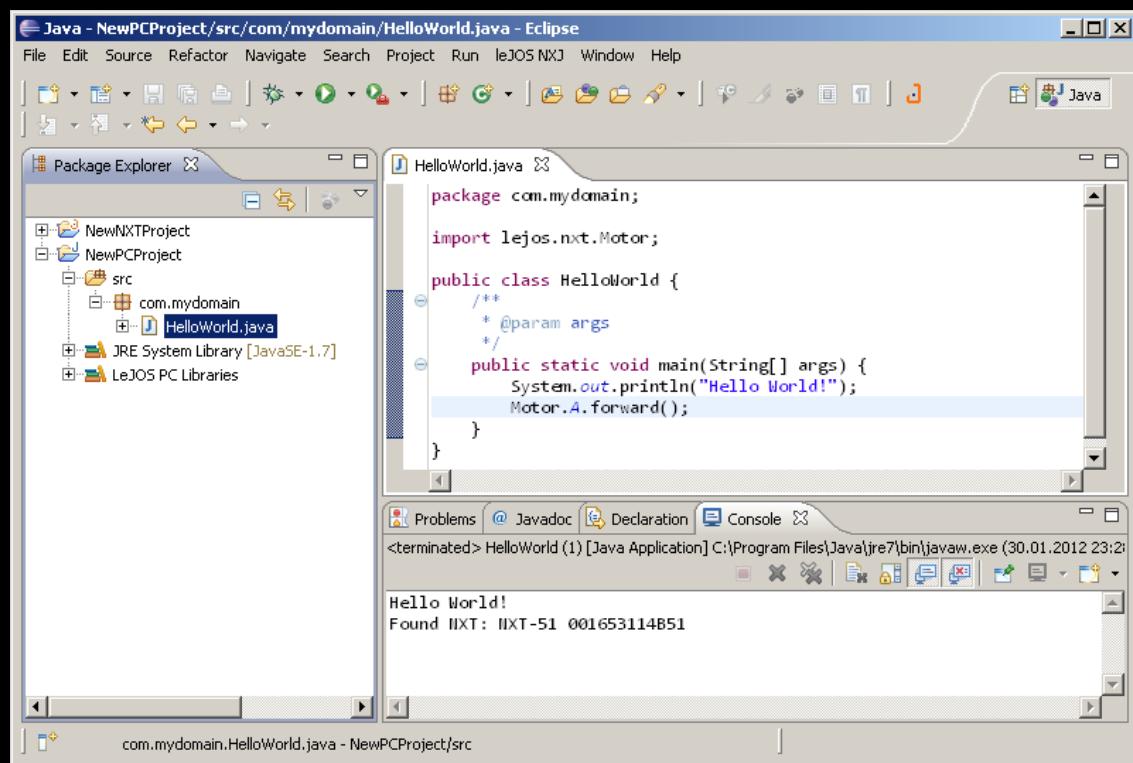
http://lejos.sourceforge.
net/nxt/nxj/tutorial/Preliminaries/ecl_project_pc11.png

http://en.wikipedia.
org/wiki/Lego_Mindstorms#Programming_languages_2

Lego Pinball Machine

http://www.youtube.com/watch?v=hbGTGc3cZnU

Android Remote Control with Bluetooth

Lego Desert Eagle

Lego Automatic Toilet Flusher

Lego Safe

Over 305 Billion combinations

http://www.youtube.com/watch?v=XjWt4O4bSjQ&feature=related

Giant Thermometer

Lego Centrifuge

http://www.youtube.com/watch?v=-k2xWoyP-SA&feature=related
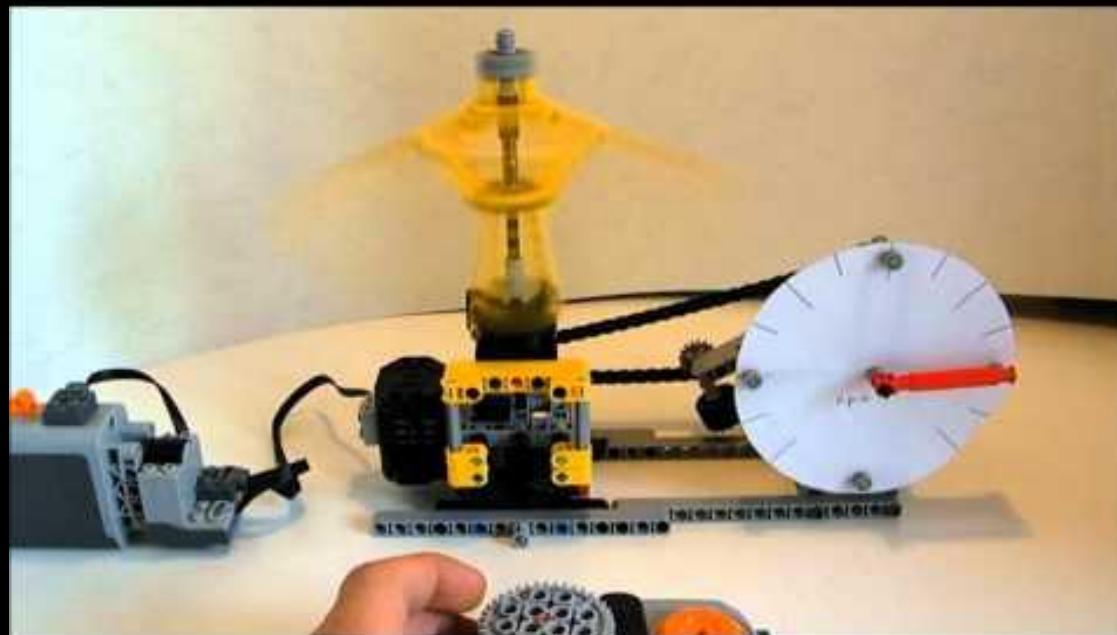
Demonstration

Demonstration of the movements listed in the handout

Challenges

Start

- Challenge 1: Drive into Garage
- Challenge 2: Back into Garage
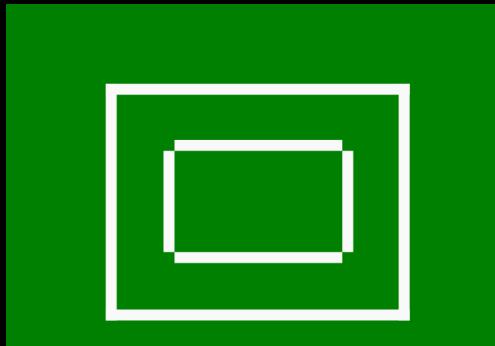
- Challenge 3: Two Laps around a Track
- Challenge 4: Two Laps backwards around a Track

Review/Discussion

- What was your favorite one of the NXT devices I showed you?
- What do you think of NXT programming? Was it easy? hard? fun?
- Any other comments?