Intro to LEGO Robotics

- <u>What is Robotics?</u>

- <u>What is Mindstorms?</u>

- <u>2-Wheel Robots</u>

- <u>Simple Robot Build</u>

What is Robotics?

Electronics
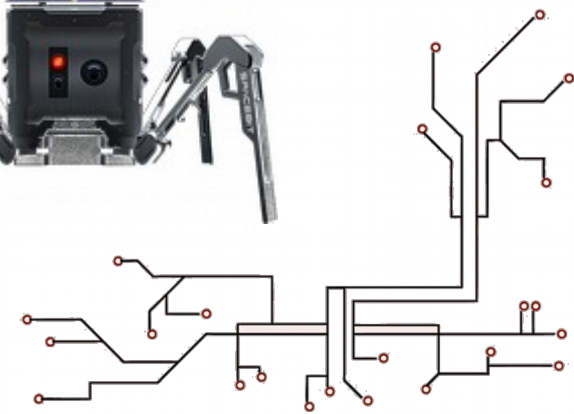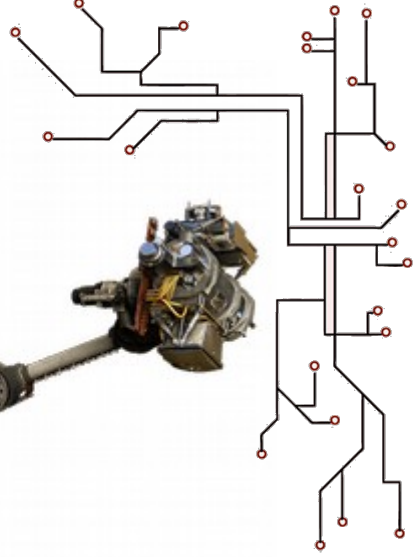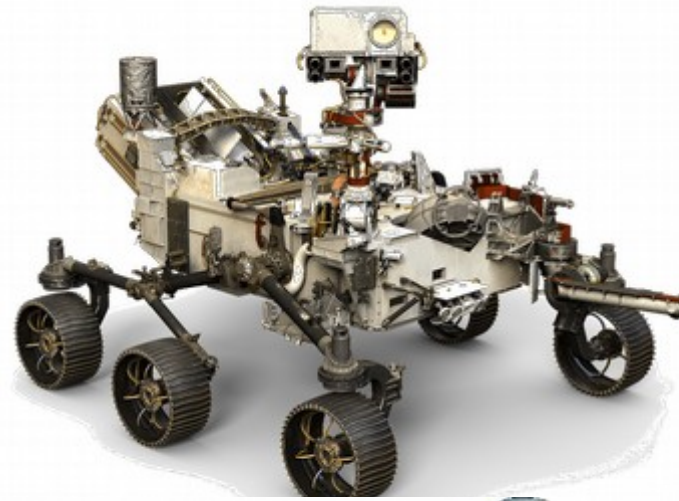
Mechanics

Programming
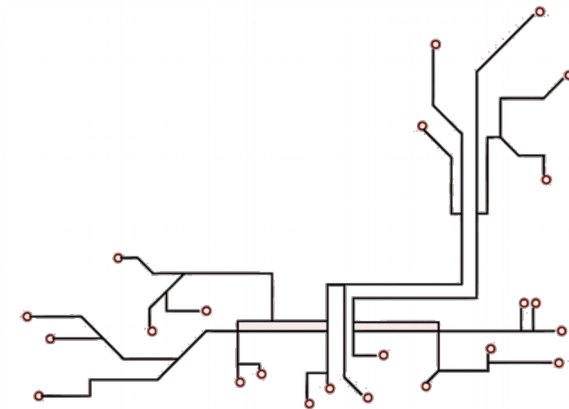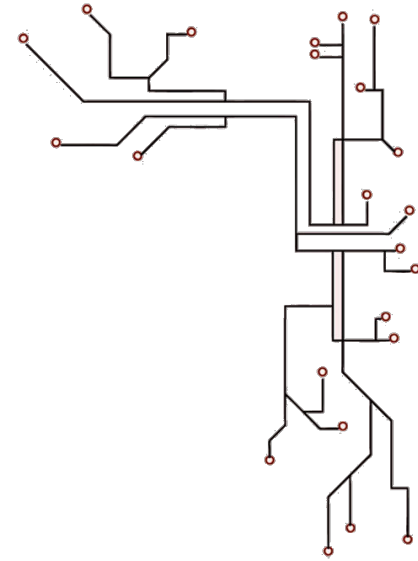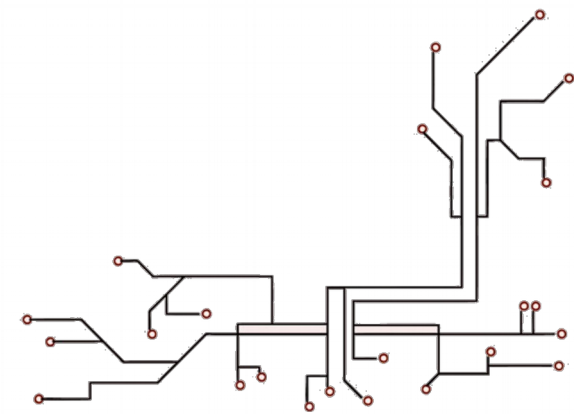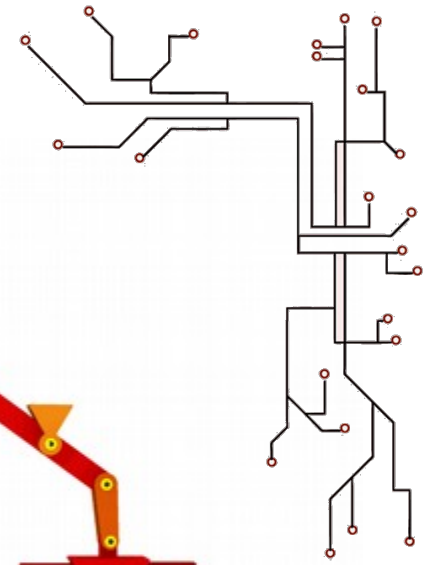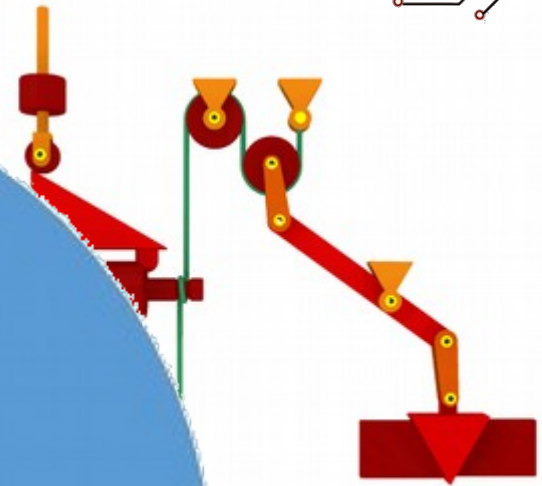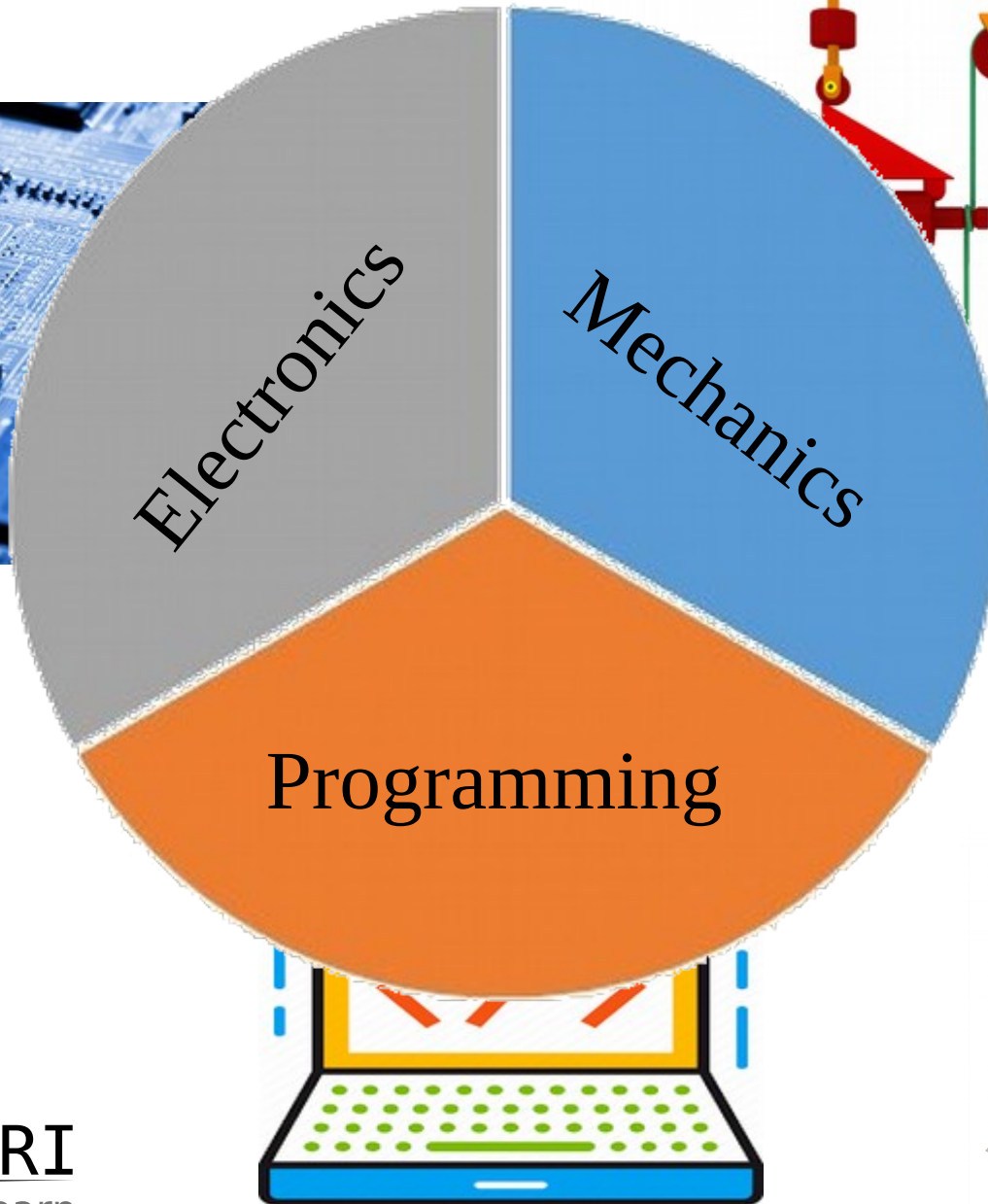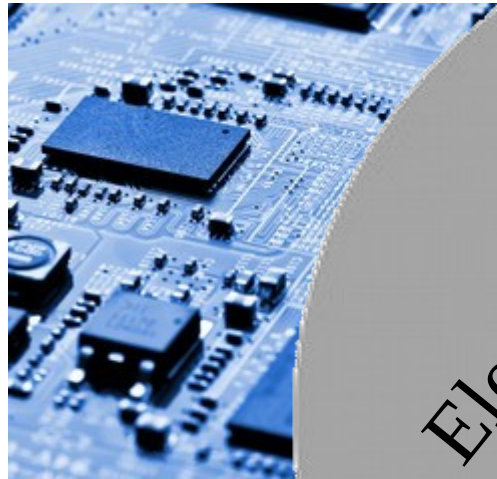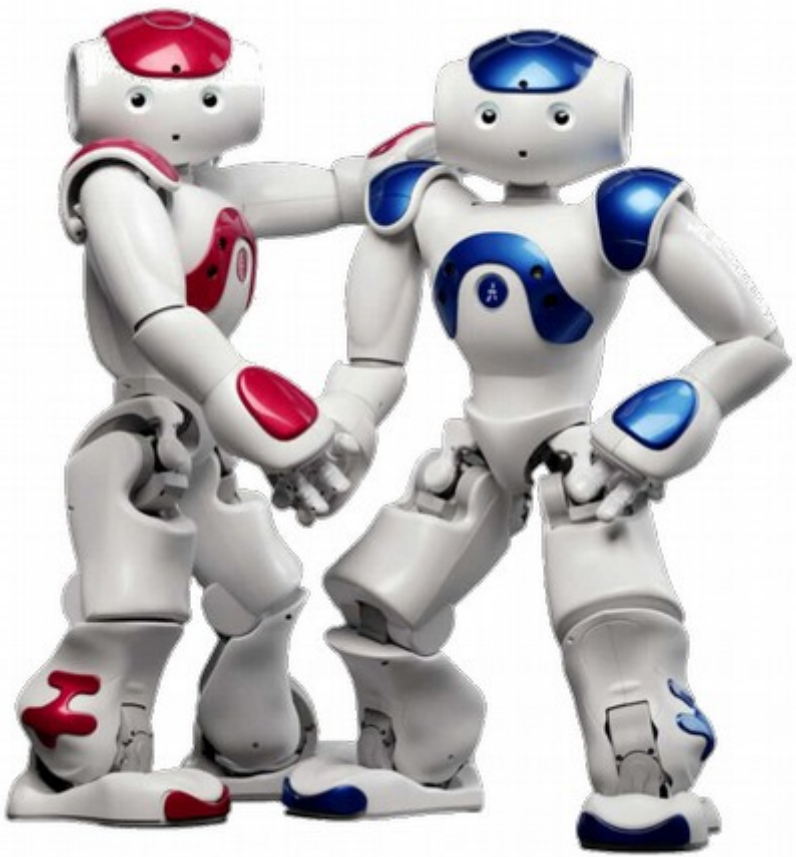
What is a Robot?

What is a Robot?

Almost anything automated…

But, physical robots usually have these:

- *Computer Brain*
- *Body / Frame*
- *Motors*
- *Sensors*
- *Wires*
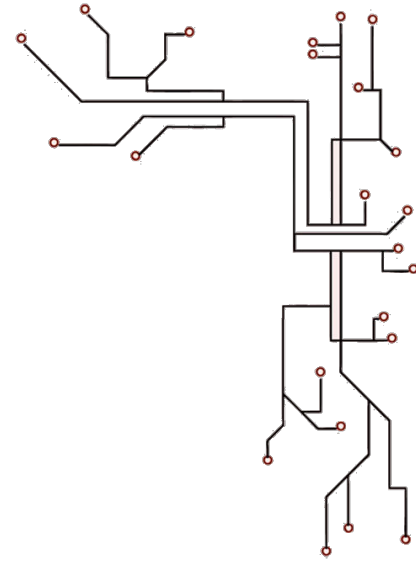
What is Mindstorms/NXT?

Wires

Motors

Brain

Sensors

Sensors

NXT vs EV3

EV3 is 3rd Generation

- RCX (1st), **NXT(2nd)**

- Similar
  - Building
  - Features
  - Capabilities

NXT vs EV3

Use NXT Brain

- Use NXT
  - Motors
  - Sensors
  - Building blocks

- *Code using EV3*
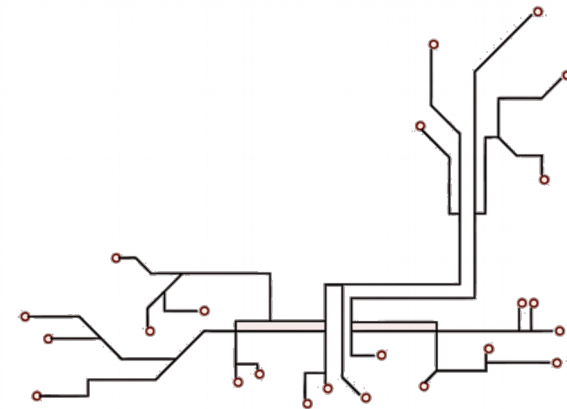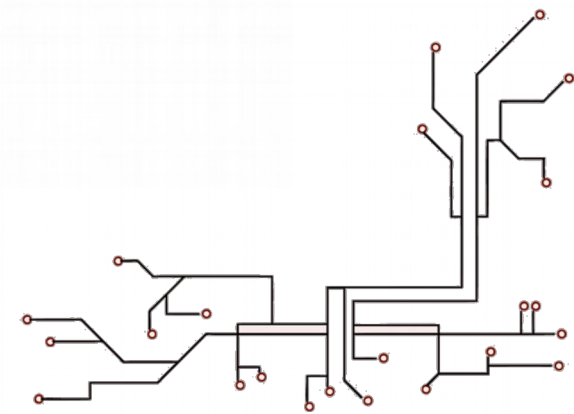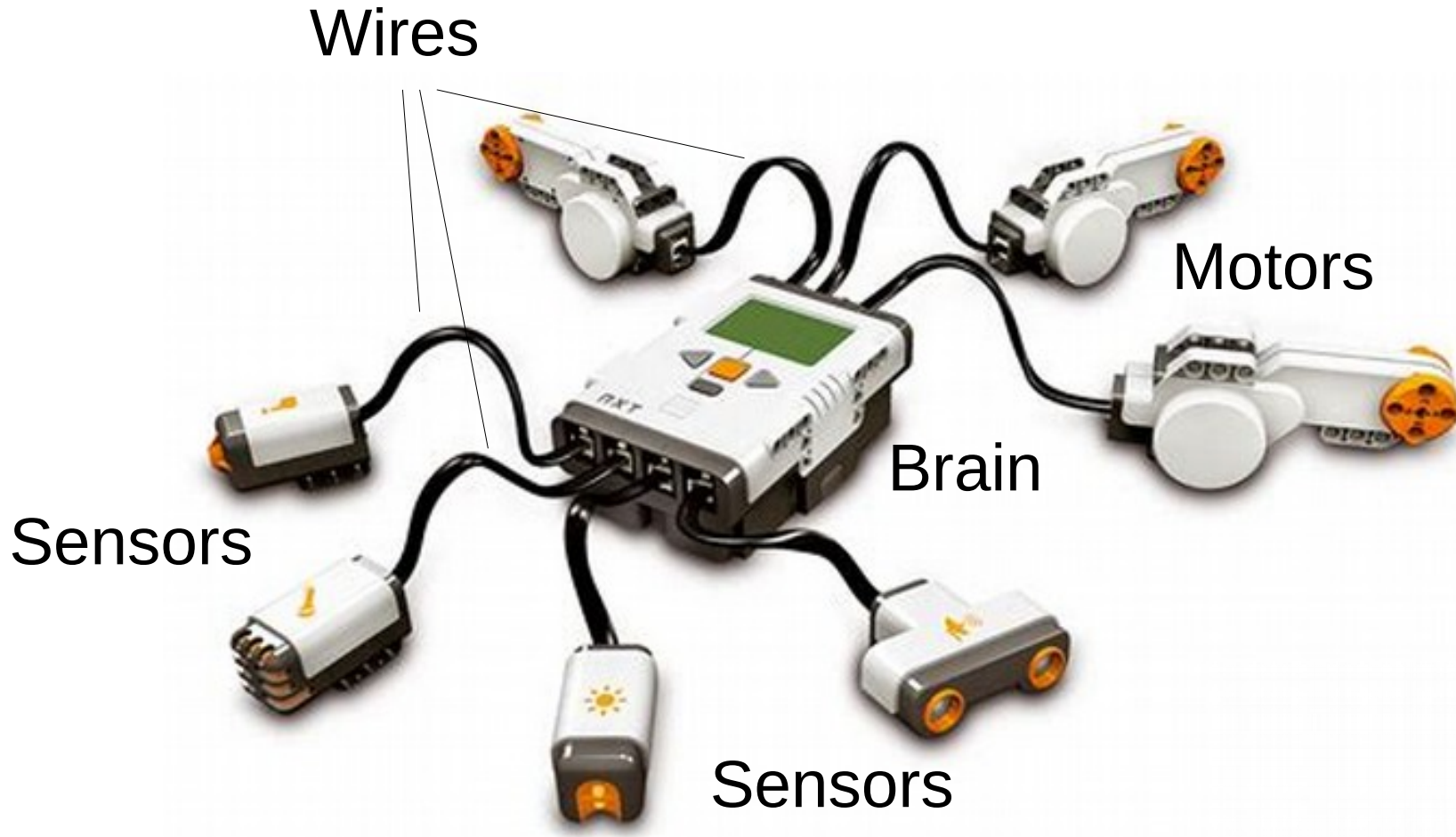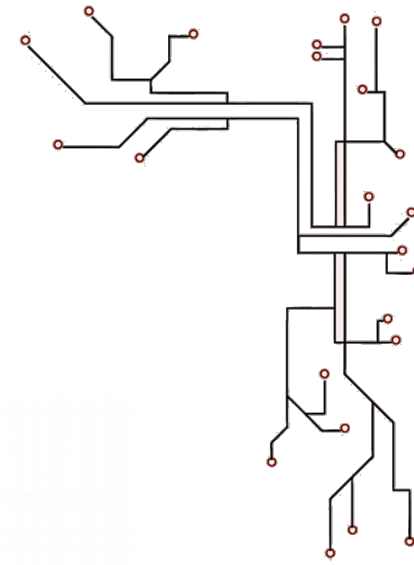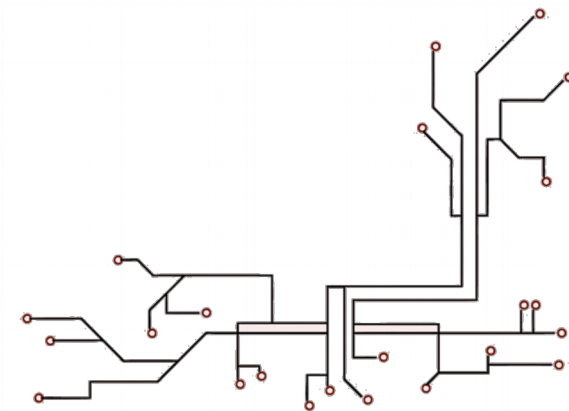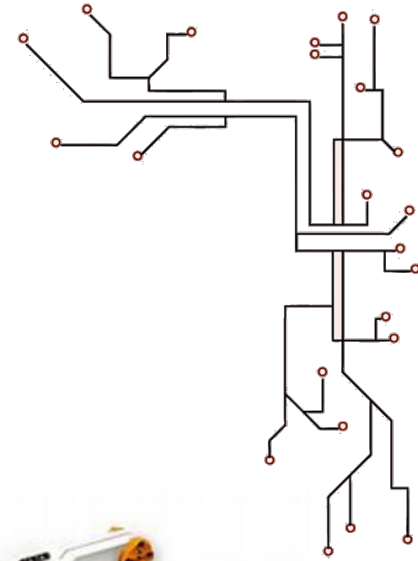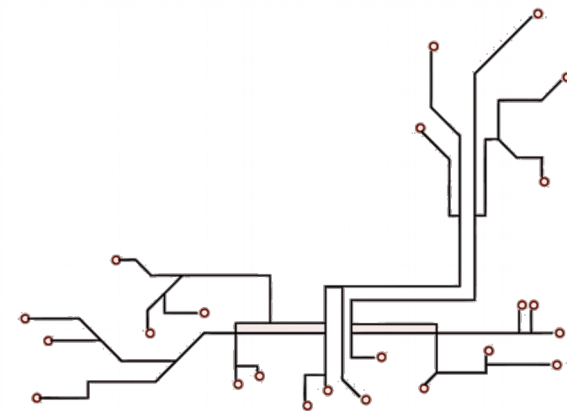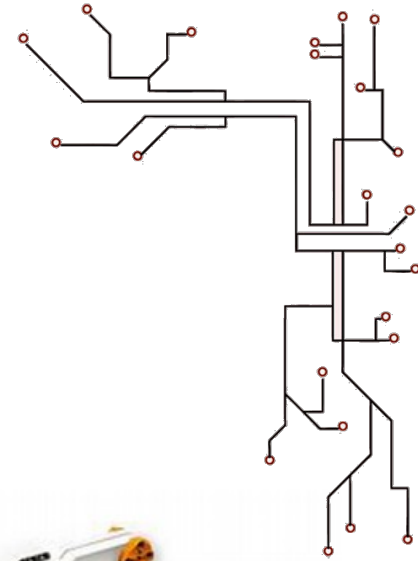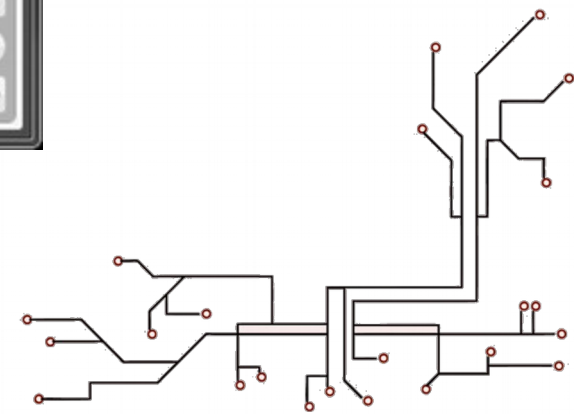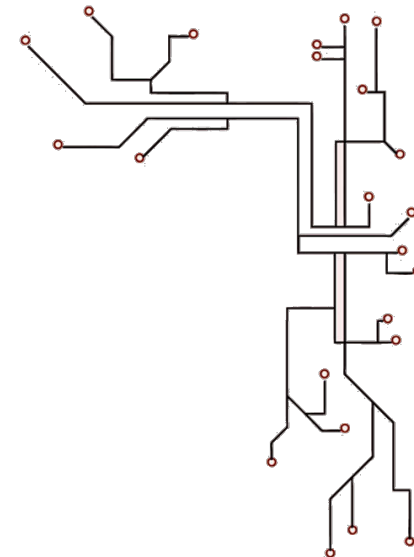
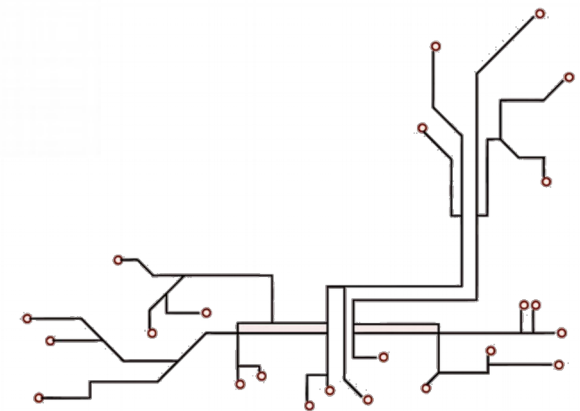# NXT/EV3 Programming
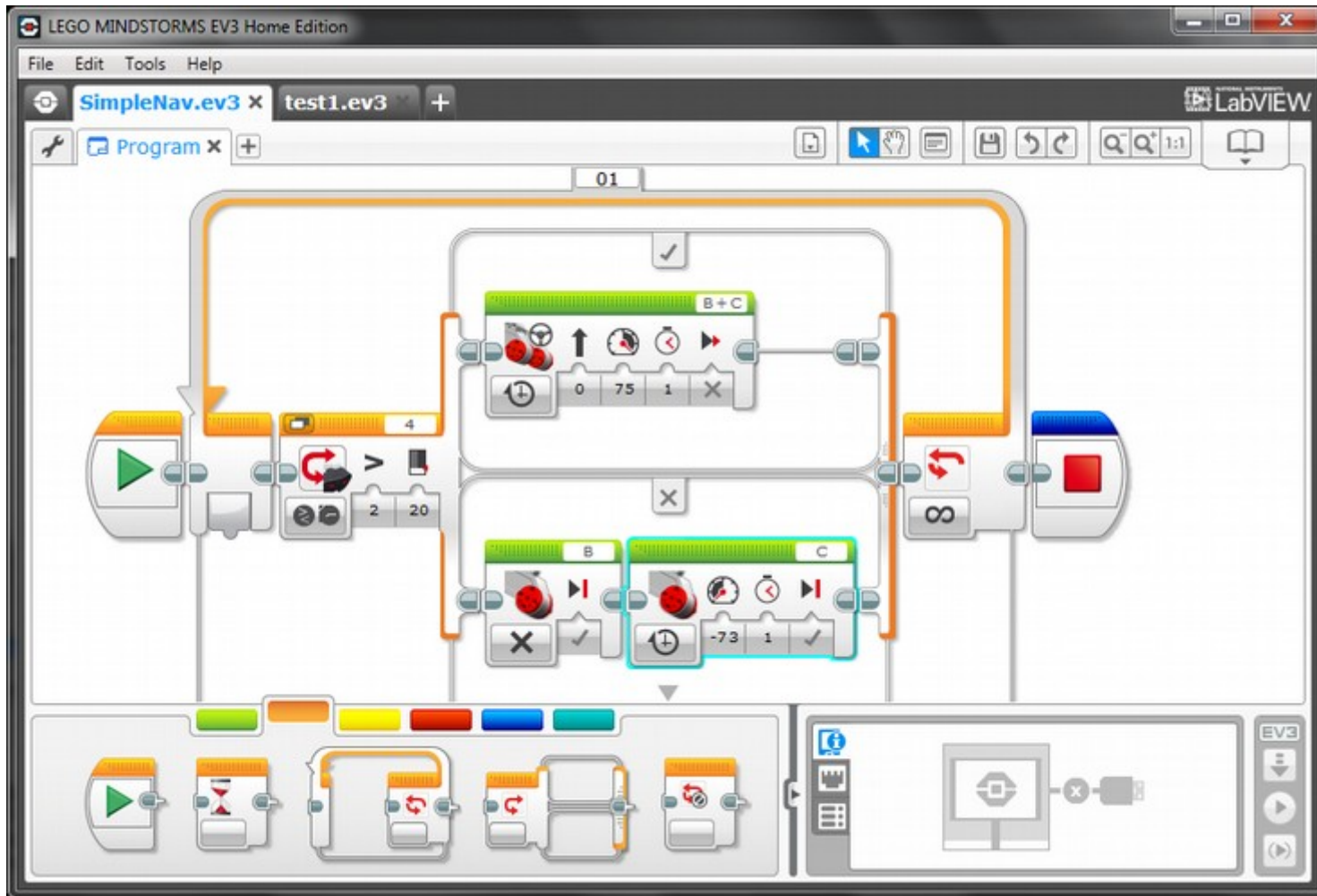
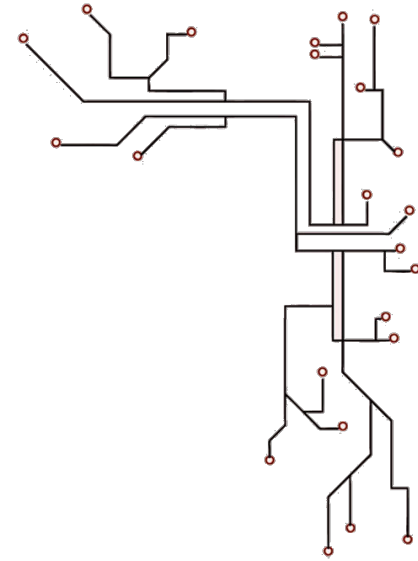## Block Programming

- Easy to learn
- Not professional...

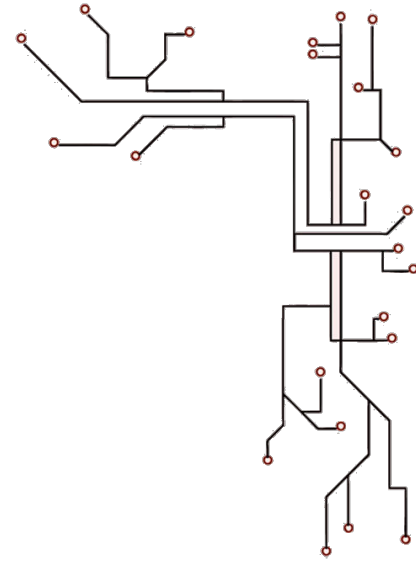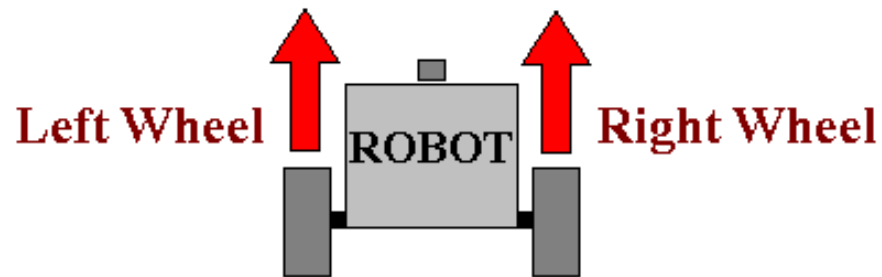A_POSTERIORI
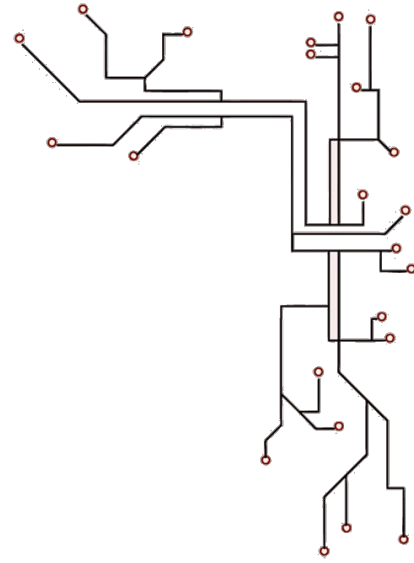Play · Experience · Learn

NXT Robot Educator

2-Wheel Base

2-Wheel Differential Drive

Forward
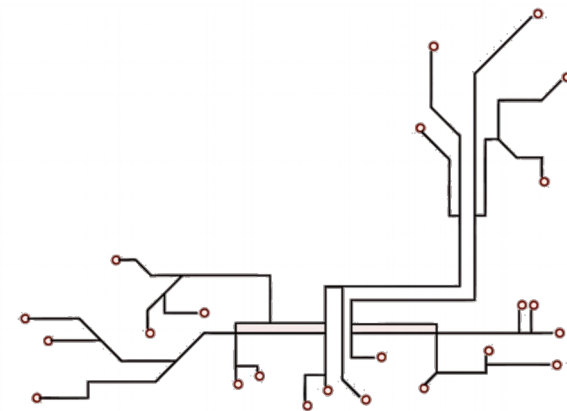
Left Wheel ROBOT Right Wheel

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Play · Experience · Learn

2-Wheel Differential Drive
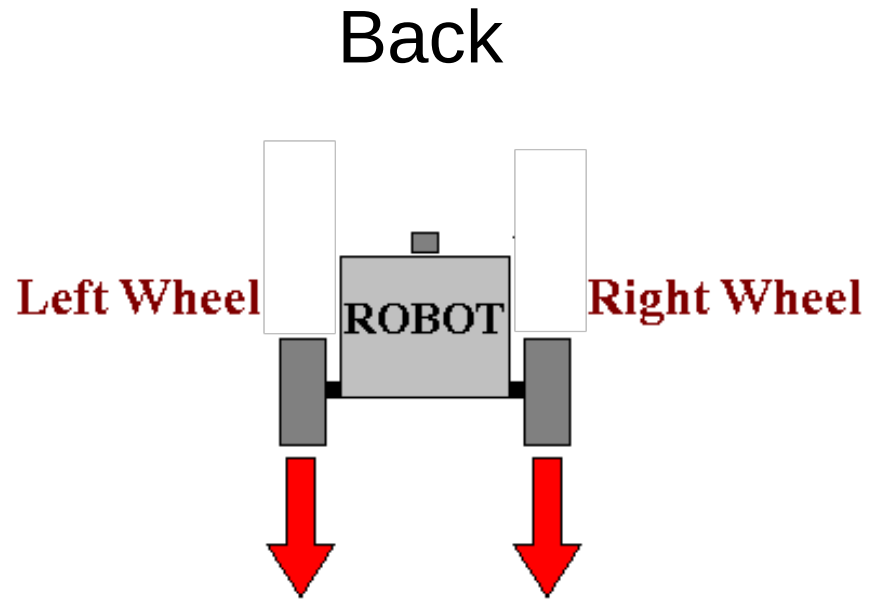

Back

Left Wheel · ROBOT · Right Wheel

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Play · Experience · Learn

2-Wheel Differential Drive

Left Turn
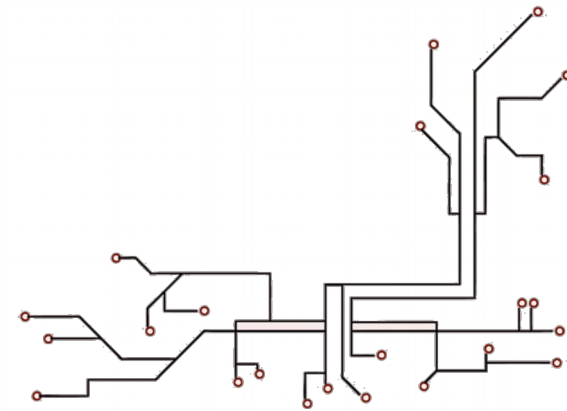
2-Wheel Differential Drive

Right Turn

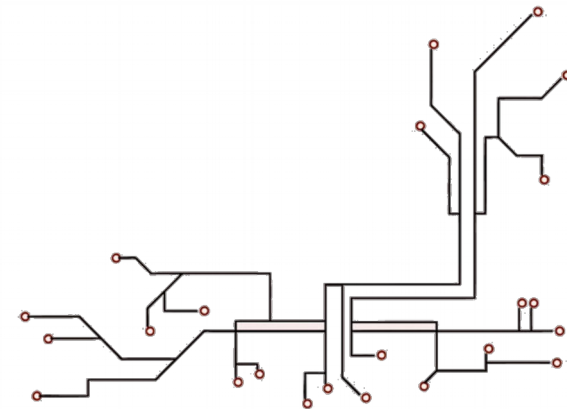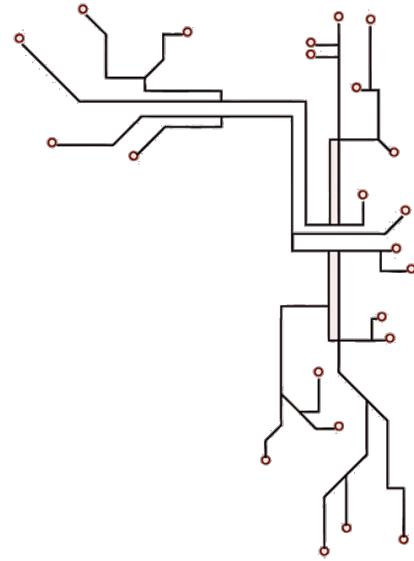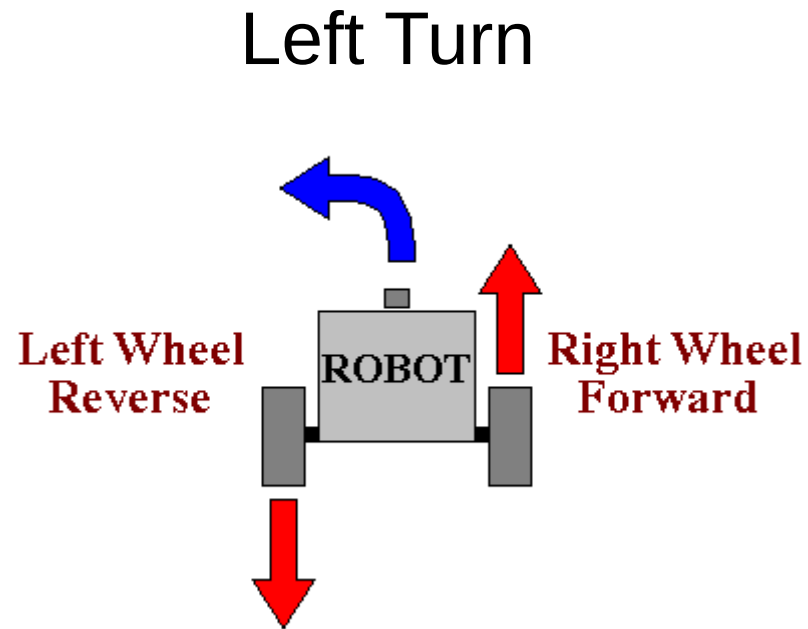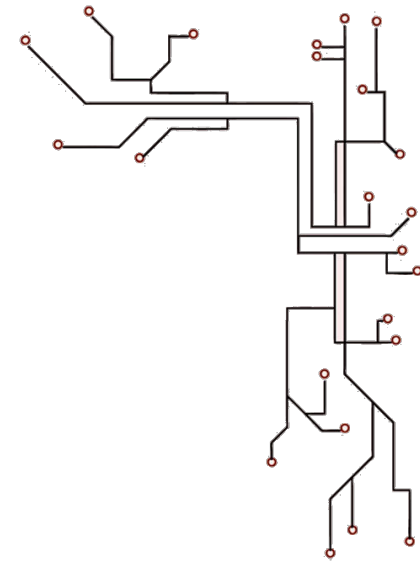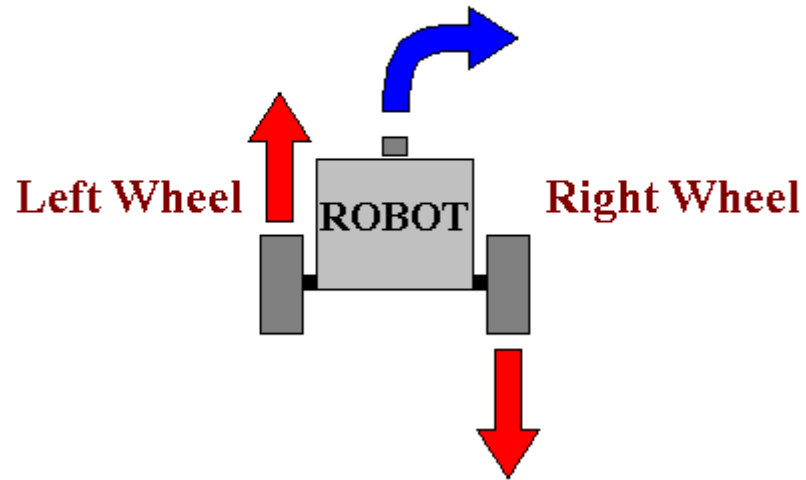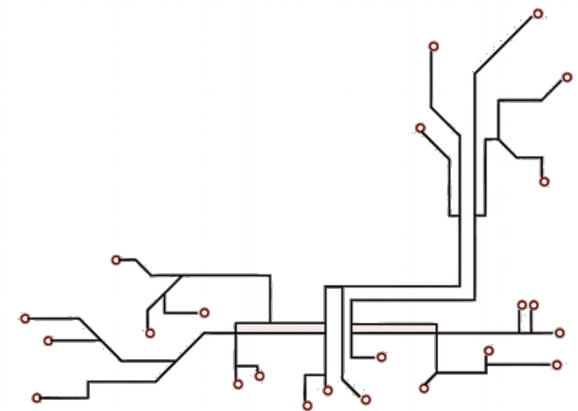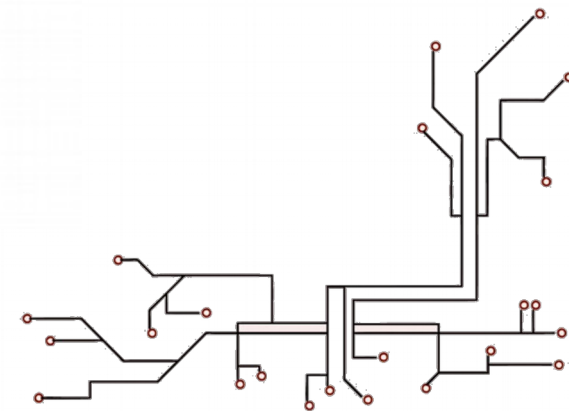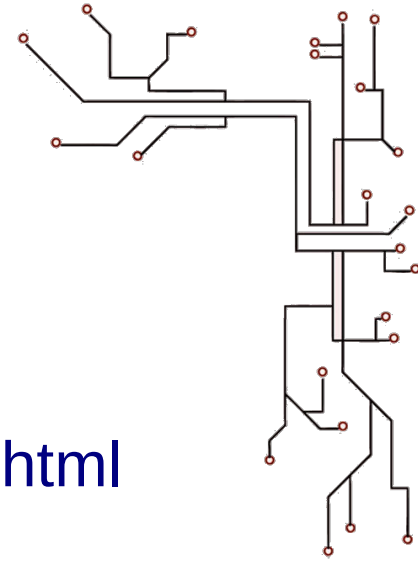# NXT Robot Educator

Let's Build!!!
http://www.nxtprograms.com/five_minute_bot/steps.html

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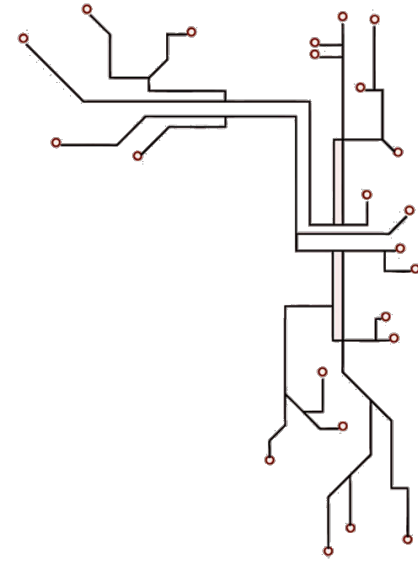
NXT Robot Educator

Then Program...