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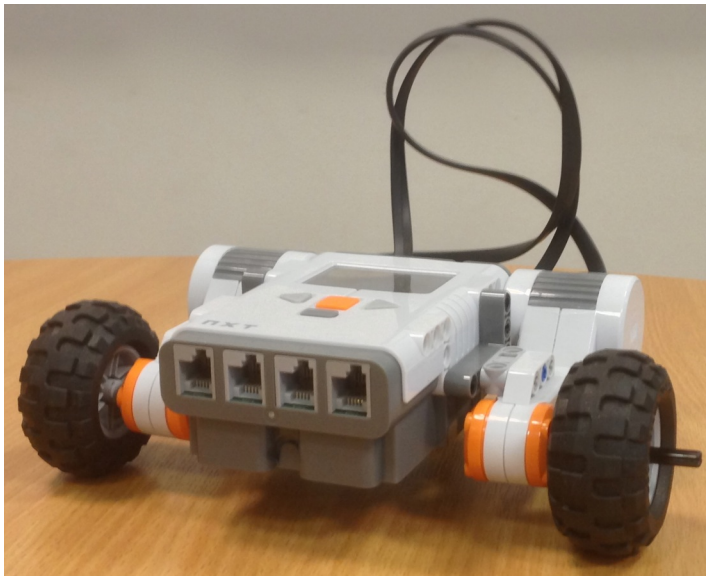
LEGO Mindstorms Top Tips

The LEGO Mindstorms NXT is a programmable robotics kit which can be used to create many different robots which can complete many different tasks. The Lego Mindstorms robots are made up of three main components:



- The NXT - You can think of this as the brain of a Mindstorms robot. It is an intelligent, computer-controlled Lego brick which instructs and uses data from the other components of the Mindstorms.
- Servo Motors - The servo motors are used to give your robot the ability to move. They can be attached to several different parts of the LEGO kit such as wheels, tracks, etc. Servo motors also have a built-in rotation sensor!
- Sensors - There is a large number of sensors available for the Mindstorms robot including a light sensor, ultrasonic sensor, sound sensor, etc.

NXT

Servo Motors

Sensors

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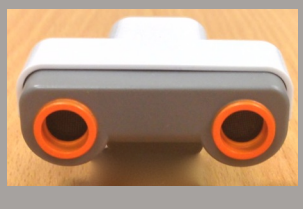
LEGO Mindstorms Sensors

Sensor	Description
Touch Sensor 	The touch sensor can be used to give your robot a sense of touch. It detects when it is being pressed by something and when it is released again. You could use the touch sensor to make your robot act on command, to know whether it has reached a wall, etc.
Sound Sensor 	The sound sensor can be used to make your robot hear. It can be used to detect both decibels [dB] and adjusted decibel [dBA]. A decibel is a measurement of sound pressure. You could use the sound sensor to make your robot act on command, detect whether there is a conversation going on in the room, etc.
Light Sensor 	The light sensor is one of the two sensors that can be used to make your robot see. The light sensor can be used to distinguish between light and dark. You could use the light sensor to create a robot which detects if the light in the room is switched on, a line following robot, etc.
Ultrasonic Sensor 	The ultrasonic sensor is the second of the two sensors that can be used to make your robot see. The ultrasonic sensor enables your robot to see and detect objects. You could use the ultrasonic sensor to make your robot avoid objects, detect movement, sense and measure distances, etc.

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