



IEEE Ottawa Robotics Competition
Compétition de robotique d'Ottawa d'IEEE

IBM LRT Detour Challenge
Bill of Materials – Robot & Arena

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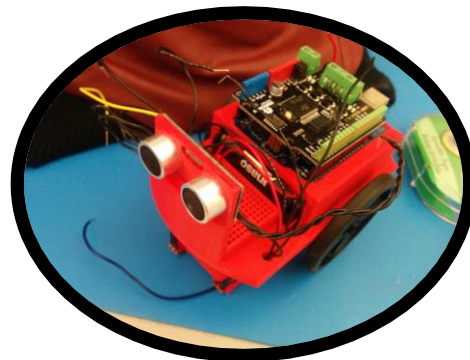
Disclaimer

It is your responsibility to read and understand this document on a regular basis because we may update it from time to time.

Bill of Materials for the Robot

One possible robot for the IBM LTR Detour Challenge is almost like a self-driving car. It is able to sense obstacles, change direction, and detect lines on the ground thanks to electrical parts from RobotShop and a 3D printed chassis. We will gladly order the parts below for you to assembly your own. Free 3D printing of the body can be done at uOttawa's Richard L'Abbé Makerspace (161 Louis Pasteur Private, [Colonel By Hall](#), Room B109A) on Sundays from 11 am – 5 pm.

(Qty) Part #	Description
(1x) RB-Ard-34	Arduino Uno
(1x) RB-Ite-54	Sonar Sensor
(1x) RB-Pol-49	Reflectance Sensor
(1x) RB-Cix-05	170 Tie-point breadboard
(2x) RB-Sbo-06	GM8 Gear Motors
(2x) RB-Sbo-59	GMPW Wheels
(1x) RB-Dfr-305	6xAA Battery Holder
(1x) RB-Dfr-58	Motor Controller Shield
(1x) RB-Lyn-392	100x 4-40 Phillips Screws 3/8"
	We recommend that you get 1/4" 4-40 screws from a local hardware store, but the screws above snugly fit into the holes of the chassis/body.
(1x) RB-Lyn-230	100x 4-40 1/4" nuts
(1x) RB-See-119	1.5 m USB Cable Type A to B
(1x) RB-Dfr-456	Jumper Wires
For the wires, you can work with just one colour.	
(1x) RB-Ibo-84	25 ft. Black wire
(1x) RB-Ibo-87	25 ft. Green wire
(1x) Rb-Ibo-85	25 ft. Red wire



Bill of Materials for the Arena

The arena is made of a Coroplast sheet (corrugated plastic) that you can get from a local home improvement store with black electrical tape.

