

Robotic Workshop (Advanced)

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***Abstract:** Hollywood has portrayed robots as dangerous and menacing, even capable of mass destruction. On the other hand, scientists have envisioned a future where robots perform everyday tasks and if current trends are any indication, then this vision of the future are becoming a reality. The robotics industry, once dominated solely by industrial and military robotics, is now branching into transportation and in particular automatic train operation (ATO) systems. Examples of ATO's can be seen on many of the Beijing Subway lines and the Beijing Airport Express service. In this Advanced LEGO Robotics workshop, we shall program robots to line follow, to simulate a train line and begin to develop ways of 'stopping' the robot at stations or in case of emergencies. This workshop requires an intermediate prior knowledge of NXT-G software and will utilize Loops, Switches and Light Sensor Calibration techniques.*

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