

## **STEM Applied Learning Programme**

## **Lesson Outline**

STEM Theme	Robotics
Module	4 (mbot)
<b>Total Hours</b>	15

No.	Topic
1	Introduction to ALP, Program Admin
2	Robotic car construction 1 (Hardware), IR control car
3	Introduction to Robotics (intro to mBot. Mblock)
4	Basic Electronics (type of sensors and actuators, LED)
5	Scratch, IDE 1 (Output, RC servo motor)
6	Scratch, IDE 2 (Input, Button, IR sensor, Joystick, limit switch)
7	Scratch, IDE 3 (Input, output, light sensor, LED)
8	Scratch, IDE 4 (Robot control 1, Motor control)
9	Scratch, IDE 5 (Wireless link, Bluetooth, 2.4G)
10	Soccer car construction 2 (Software)

