



Autonomous Vehicles with mBot CAMPS



INTRODUCTION

We are learning about the work of engineers with mBot robot. We will learn how to drive, turn, use lights and sound, and park. We will follow the Engineering Design Process. These same techniques are used by real engineers working on smart vehicles, machines and much more.

DAY 1 - Engineers at Work, Build mBot Robot

[Lesson Link](#) [Engineering Notebook Sample Pages](#)

[Pre-Test Link](#)

1



Class Time: 2.5 HRS
Objectives:

- I can work like an Engineer.
- I can define and describe a robot
- I can assemble the mBot robot
- I can access and use the technology needed.

DAY 2 - Use the mBlock Software

[Lesson Link](#) [Engineering Notebook Sample Pages](#)

[Robot Dance](#)

2



Class Time: 2.5 HRS
Objectives:

- I can work like an Engineer.
- I can describe how to code mBot.
- I can find troubleshooting solutions.
- I can access and use the technology needed.

DAY 3 - Basic Movement

[Lesson Link](#) [Engineering Notebook Sample Pages](#)

3



Class Time: 2.5 HRS
Objectives:

- I can learn about Algorithms and why they are important in coding.
- I can program mBot to move forward and backward.
- I can learn that Sequence is a precise order.
- I can access and use the technology needed to program a robot.

DAY 4 - Moves and Turns

[Lesson Link](#) [Engineering Notebook Sample Pages](#)

4



Class Time: 2.5 HRS

- I can describe details about how autonomous cars function.
- I can program mBot to make turns.