## SIEMENS DRIVERLESS CAR CHALLENGE: ROUTE B

Creating new systems is an iterative design process: this means that the overall product is created over many stages of testing, evaluation and development. Advanced driver assistance systems (ADAS) already exist, and can be seen as the first stage towards driverless technology. These include GPS, anti-lock breaking systems and other information and sensing systems including radar.

STUDENT ACTIVITY SHEETS

## STUDENT ACTIVITY 1: ROUTE B

SIEMENS

Using the micro:bit block editor (https://makecode.microbit.org/), copy and complete the code below to navigate a Siemens Robo Buggy along Route B, as laid out on the Auto City map (on page 2).

If you have your own buggy, test the code on your print out of the Auto City map. You will have to adjust the speed of the motors for your own buggy.



## **ACTIVITY 2: QUESTIONS**

Answer the following in full sentences

a) What is ADAS technology?

b) Look at the examples of ADAS technology below. Fill in the table to explain what each one is and how it makes driving safer. Use your research skills to find the following definitions.

ADAS System	How it makes driving safer
GPS Navigation	
Parking Sensor	
Rain Sensor	
Automatic braking	