



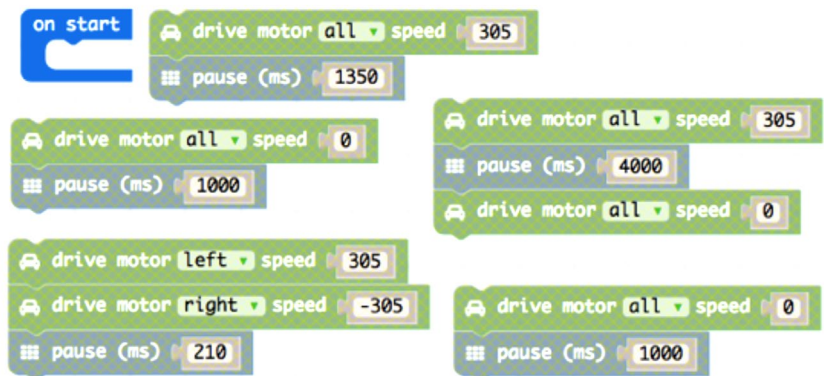
SIEMENS DRIVERLESS CAR CHALLENGE: ROUTE A

Driverless cars are continually sent updated code so they can navigate their way to a destination via radio signal, wifi or satellites. Receiving regular updates allows the vehicle to avoid traffic and roadworks happening in real time, whilst sensors will detect obstacles and hazards.

STUDENT ACTIVITY 1: AUTO CITY ROUTE A

Use the micro:bit block editor (<https://makecode.microbit.org/>), to copy and rearrange the code below to navigate a Siemens Robo Buggy along Route A, 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. Please refer to the map image on page 2 if you do not have your own buggies.



ACTIVITY 2: QUESTIONS

Answer the following in full sentences

a) By what three methods could driverless cars receive their codes?

b) What obstacles do driverless cars need to avoid?

c) What technology can be used to detect these obstacles?

d) Fill out the table below, describing the motor directions for each type of travel

Buggy Travel	Left Motor	Right Motor
Forward		
Turn Left		
Turn Right		