SIEMENS

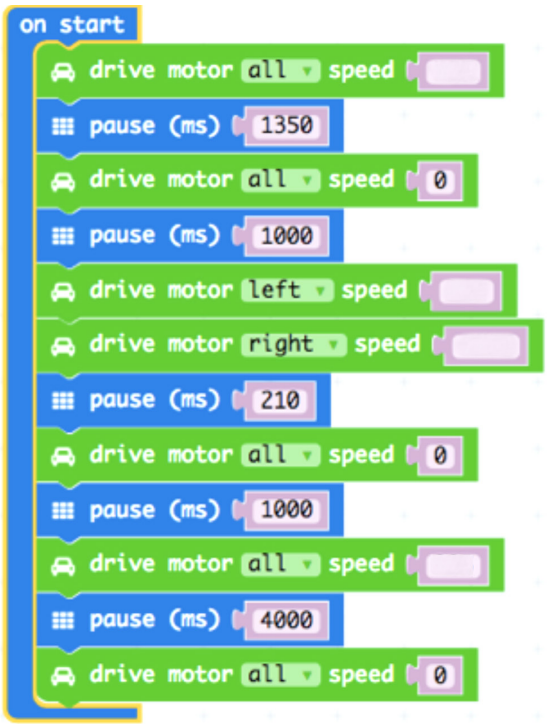
MAP 1 STUDENT ACTIVITY SHEETS

CODE CONTROLLED BUGGIES

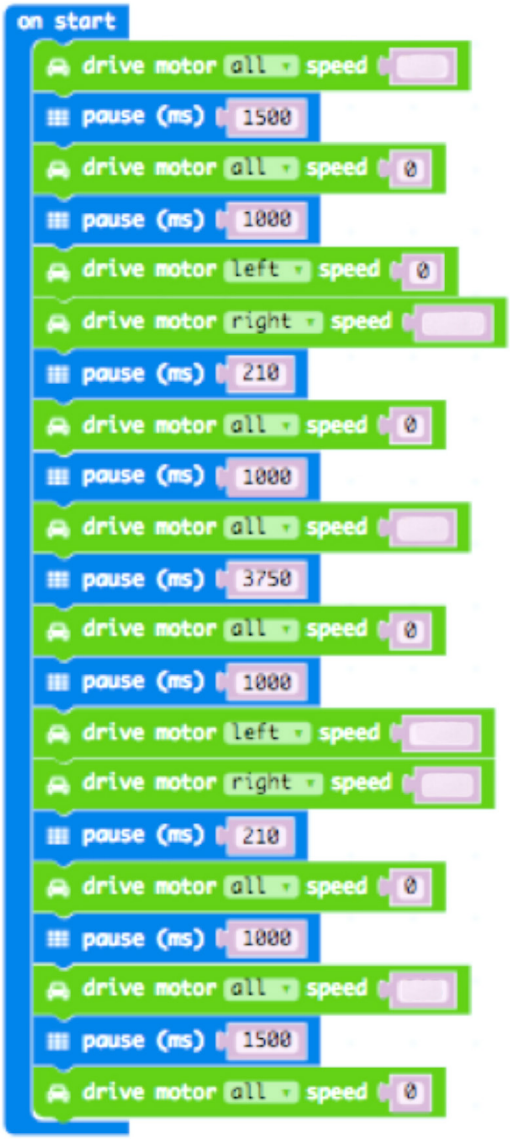
Driverless cars will be the transport of the future, moving passengers from home to their destinations safely and efficiently using code.

Using the micro:bit block editor (https://makecode.microbit.org/), copy and construct the code below to navigate a Siemens Robo Buggy along Routes A and B on our Auto City map.

Route A



Route B



HELPFUL HINTS

- Use the number on the underside of your vehicle to fill the blank speed boxes on the green parts of the code
- Each buggy has a left and a right motor – turning both motors forward with a positive speed will make the buggies run forwards. To turn the buggy, move one motor forwards and the other in reverse, shown above as a negative speed.
- Pauses are used to tell the buggy how long an instruction lasts for.

SIEMENS

MAP 2 STUDENT ACTIVITY SHEETS

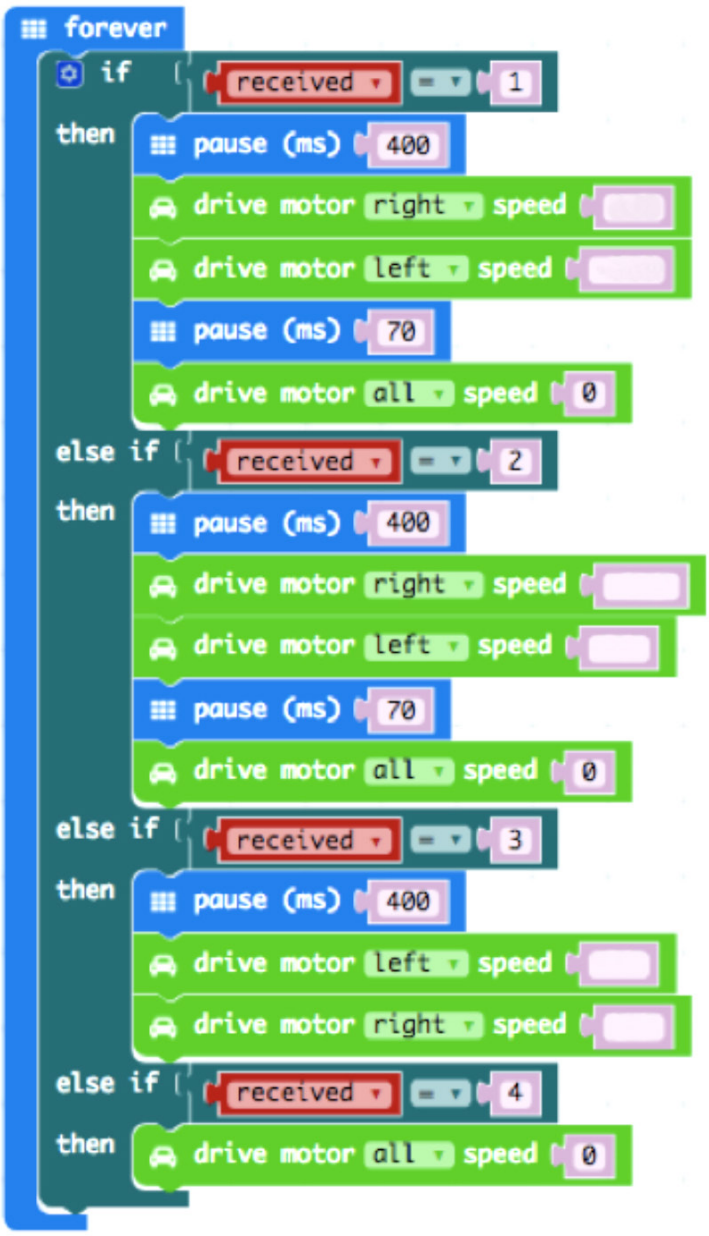
RADIO CONTROLLED ROBO BUGGIES

Driverless cars will be the transport of the future, moving passengers from home to destinations safely and efficiently using code sent by radio from Traffic HQ.

Help code the Siemen's Robo Buggies to navigate the test roads on our Auto City map.

RADIO CONTROL DRIVE!

Using the micro:bit block editor (https://makecode.microbit.org/), copy the code below below onto your Robo Buggy and use your radio control handset to navigate routes A B and C safely and without going onto the pavement.



SIEMENS

MAP 2 STUDENT ACTIVITY SHEETS

Controller Instructions:

Forward: A + B

Left: A

Right: B

Brake: Shake!

HELPFUL HINTS

- Use the number on the bottom of your vehicle to fill the blank speed boxes on the green parts of the code and the number on your handset for the radio group number.
- Each buggy has a left and a right motor – turning both motors forward with a positive speed will make the buggies run forwards. To turn the buggy, move one motor forwards and the other in reverse, shown above as a negative speed.
- Pauses are used to tell the buggy how long an instruction lasts for.