



Pre-Mission Preparation

Make a list of blinking indicators, like flashing road signs or traffic lights:

Answers will vary

- Airplane landing field
- Remote when you push a button to find it
- Car signals
- Outside buildings when the store wants to get your attention
- Video and arcade games

Mission Objective #4

Click on **LOOP**. Write the definition of “loop”:

Repeating sections of code

A statement that repeats an indented block of code as long as a condition is True.

Write a fact about loops:

Answers can vary:

- Loops let you change the flow of your code
- A while loop repeats a block of code as long as a condition is true
- A break command can be used to break out of a loop before the condition is true
- A for loop is another type of loop; it has a range iterator

Write the definition of “while loop”:

A while loop repeats a block of code as long as a condition is true

Click on **condition**. What is the result of a condition?

A Boolean, or True / False

Give an example of a condition:

Answers can vary. You can challenge your students to think of an example not given in the instructions.

- `game_over == False`
- `number > 5`
- `count < 10`

Mission Objective #5

Write a definition of “infinite loop”:

A continuous loop; doesn't stop because the condition is always True

Mission Objective #6

CodeX has 6 buttons that are used as input. Click on “CodeX buttons” and use the information in the toolbox to write the name of each button:

BTN_U	Up	BTN_D	Down	BTN_L	Left
BTN_R	Right	BTN_A	A	BTN_B	B

Mission Objective #10 & 11

Give an example of code that will increment:

Answers can vary:
`delay = delay + 0.2`

Give an example of code that will decrement:

Answers can vary:
`delay = delay - 0.2`

Post-Mission Reflection

What are some things with buttons you might want to program to control something?

Answers will vary