Name: _____ Date: _____

# VᴱX EXP   *If* statement

In this Lesson: You learn about what the *if* statement in VEXcode EXP is, and how it can be used in a project to make your robot make a decision to accomplish a task.
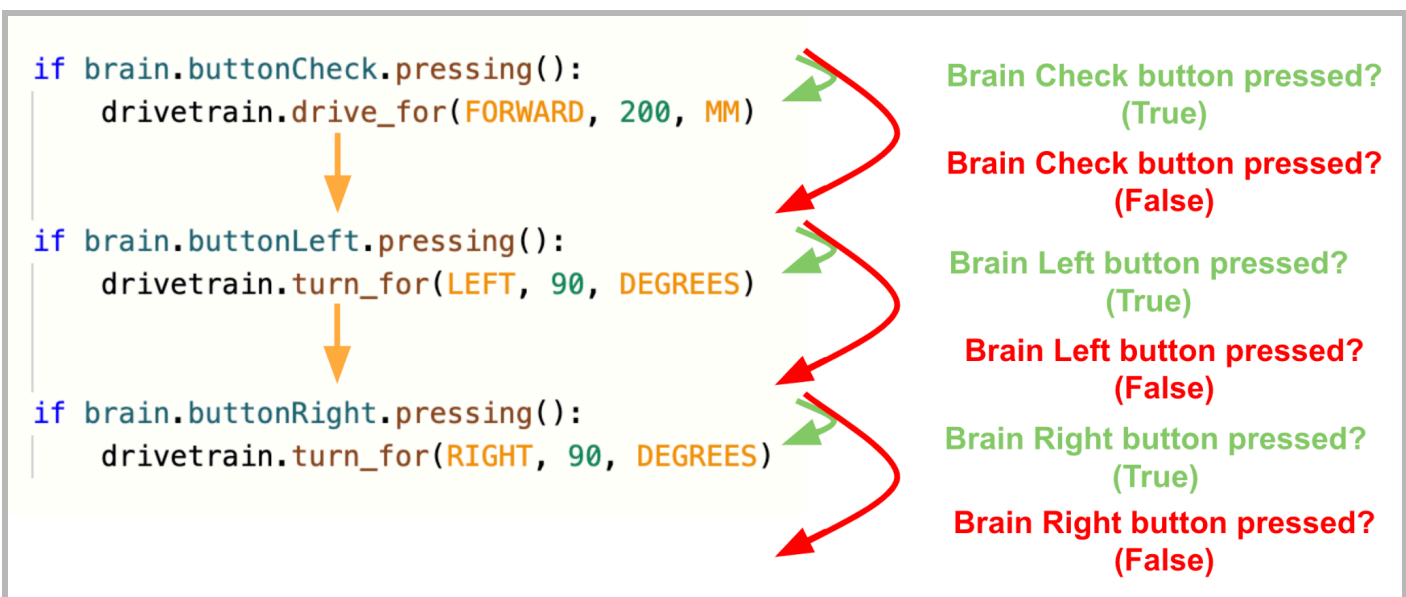
Definition(s):

- **If :** a control statement that runs the commands indented beneath it when the Boolean condition is reported as True

  Note: *To learn more about the **if** statement, you can access the Help in VEXcode EXP.*
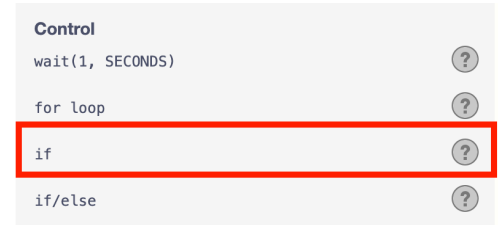
Notes:

- The *if* statement is used to make your robot make a decision. You can use multiple *If* statements in the same project (as shown in this example based on the project in the video).
  - The *if* statement uses Boolean conditions, which report as True or False.
  - The *if* statement will run the commands indented beneath it when the Boolean condition is reported as True.
  - If the Boolean condition is reported as False, the *if* statement will be 'skipped' in the project.
  - When you have multiple *if* statements in a project, the condition that is reported as True will determine which *if* statement will run.

```
if brain.buttonCheck.pressing():
    drivetrain.drive_for(FORWARD, 200, MM)


if brain.buttonLeft.pressing():
    drivetrain.turn_for(LEFT, 90, DEGREES)


if brain.buttonRight.pressing():
    drivetrain.turn_for(RIGHT, 90, DEGREES)
```

Brain Check button pressed? (True)

Brain Check button pressed? (False)

Brain Left button pressed? (True)

Brain Left button pressed? (False)

Brain Right button pressed? (True)

Brain Right button pressed? (False)

- The *if* statement will check a condition only once (as shown above). Add a *while* loop with the condition True or a *for* loop to check conditions repeatedly (as shown below).

```
while True:
    if brain.buttonCheck.pressing():
        drivetrain.drive_for(FORWARD, 200, MM)
```

Repeats while True