

Exercise 2:

Test the DC motors using this code:

CircuitPython code to run DC motors using CPX + Crickit
Rover moves forward continuously without button control

```
import time
from adafruit_crickit import crickit

# Setup DC motors on Crickit
motor_left = crickit.dc_motor_1
motor_right = crickit.dc_motor_2

def run_forward(speed=0.6):
    motor_left.throttle = speed
    motor_right.throttle = speed

def stop_motors():
    motor_left.throttle = 0
    motor_right.throttle = 0

# Keep running
while True:
    run_forward()
    time.sleep(1)
    stop_motors()
    time.sleep(1)
```

Explanation for code

What this code does

- The rover moves forward for 1 second
- Then stops for 1 second
- This repeats continuously

import time

->This line imports the time library so the program can use delays.

from adafruit_crickit import crickit

->This line imports the Crickit library so the CPX can control motors connected to the Crickit board.

motor_left = crickit.dc_motor_1

->This line assigns the left DC motor to motor port 1 on the Crickit board.

motor_right = crickit.dc_motor_2

->This line assigns the right DC motor to motor port 2 on the Crickit board.

```
def run_forward(speed=0.6):
```

->This line defines a function that makes the rover move forward at a given speed.

```
    motor_left.throttle = speed
```

->This line sets the speed of the left motor.

```
    motor_right.throttle = speed
```

->This line sets the speed of the right motor.

```
def stop_motors():
```

->This line defines a function to stop both motors.

```
    motor_left.throttle = 0
```

->This line stops the left motor.

```
    motor_right.throttle = 0
```

->This line stops the right motor.

```
while True:
```

->This line starts an infinite loop so the code keeps running.

```
    run_forward()
```

->This line makes the rover move forward.

```
    time.sleep(1)
```

->This line pauses the program for 1 second while the rover is moving.

```
    stop_motors()
```

->This line stops the rover.

```
    time.sleep(1)
```

->This line pauses the program for 1 second before repeating the loop.