

# Coding Fundamentals

## Lab 4 Images

# Coder Cards Needed

when start 123



drive 1



drive 4



turn left



glow purple



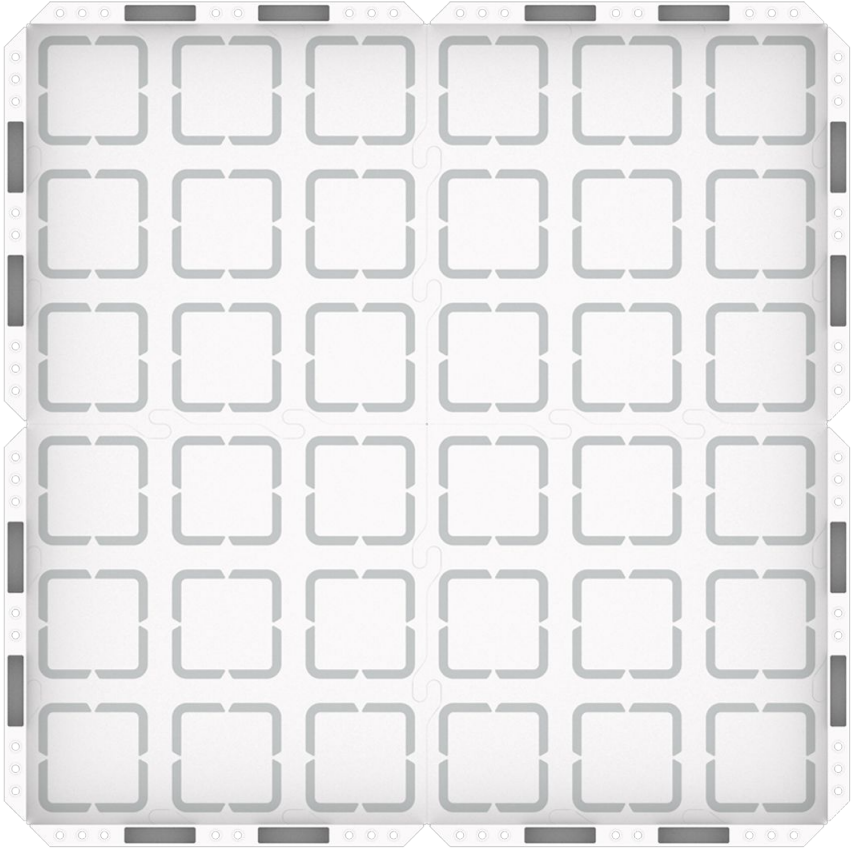
turn right



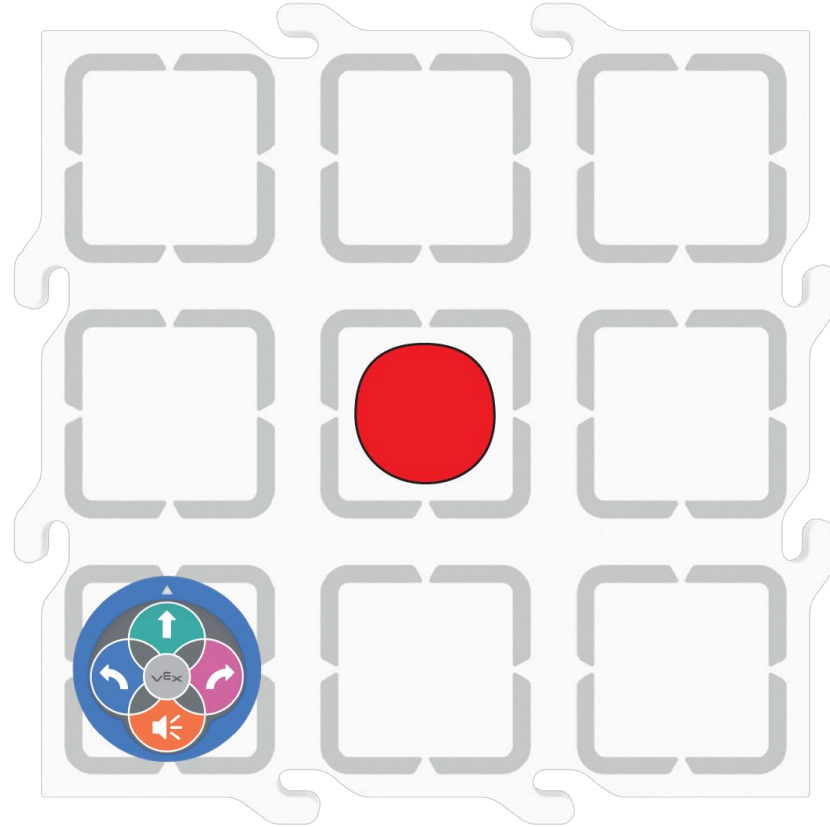
play honk



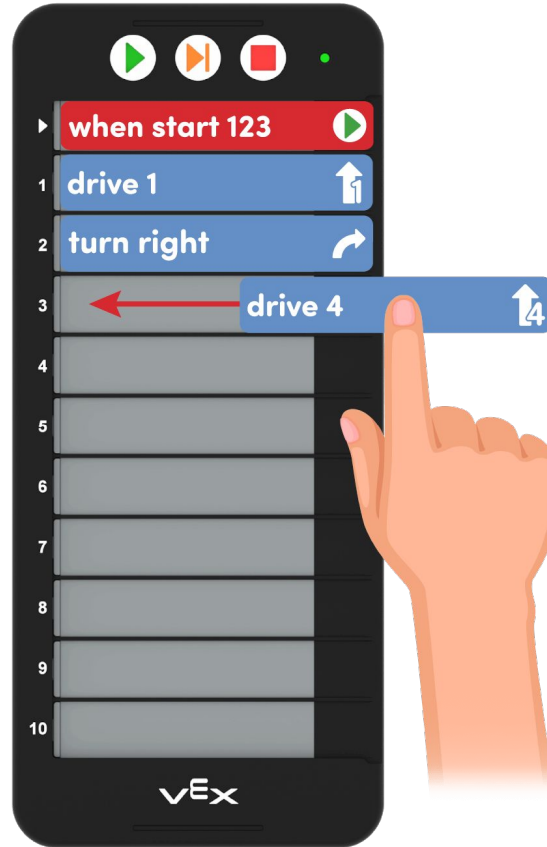
# 123 Field Setup



# Goal of the Project



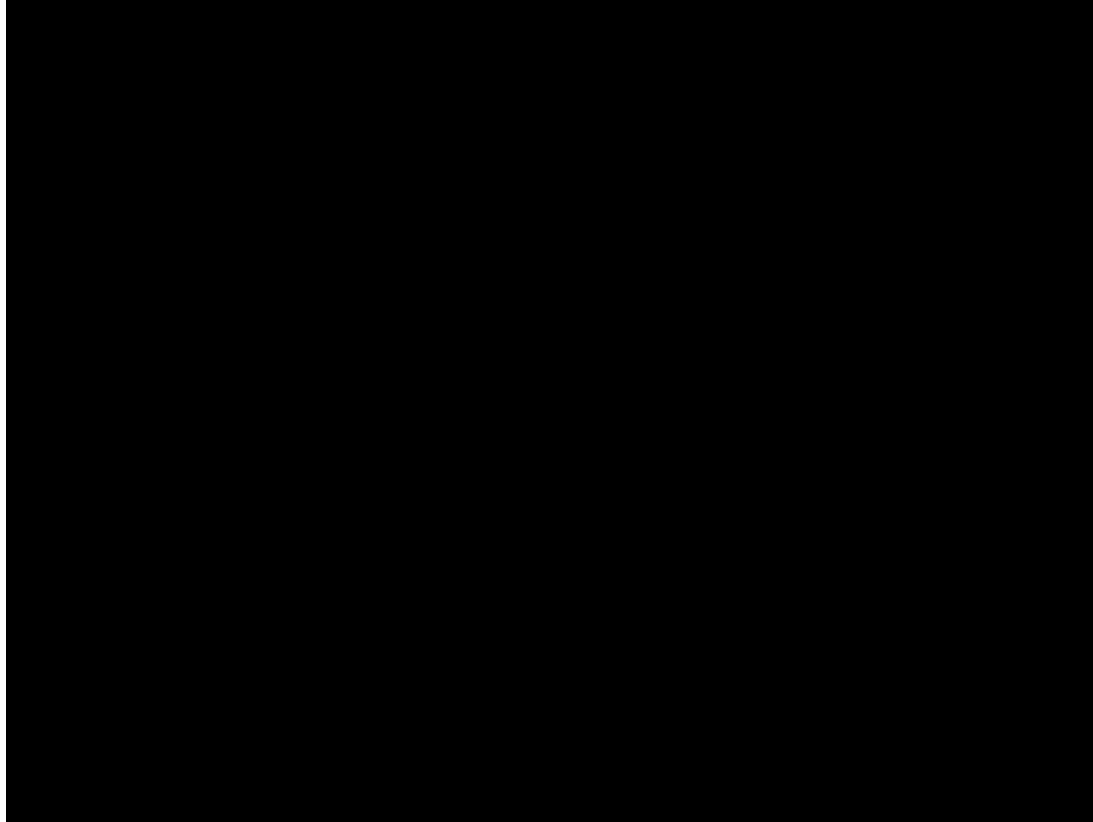
# Coder Card Project



# Push to Wake the 123 Robot



# Connect the 123 Robot to a Coder

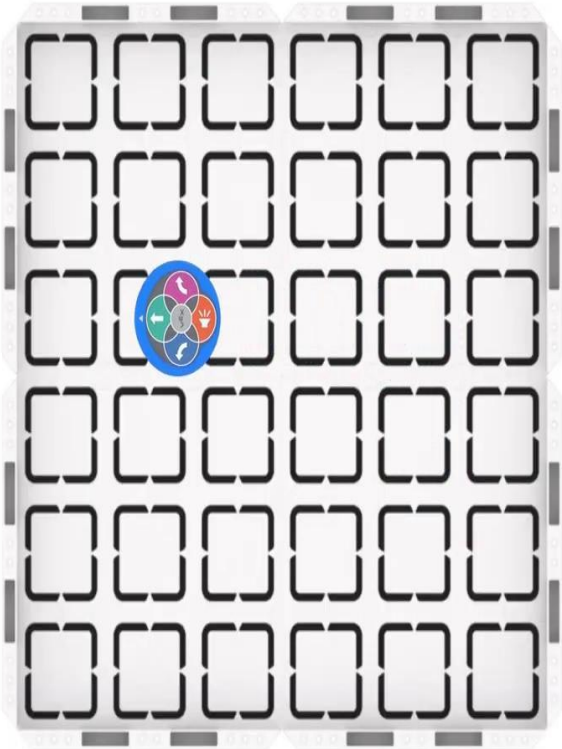


# Step Feature on the Coder





# Intended behaviors



# Display Coder Card Sequence

when start 123



drive 1



turn right



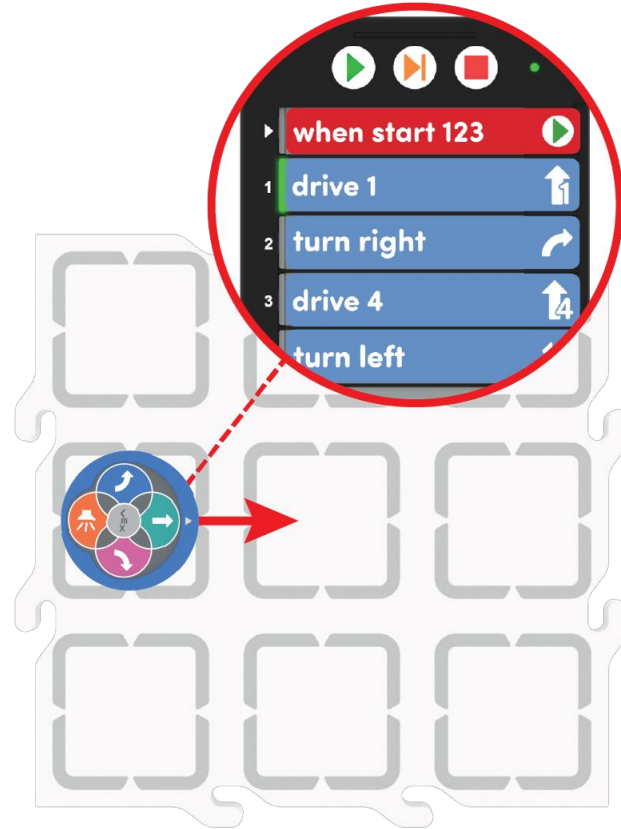
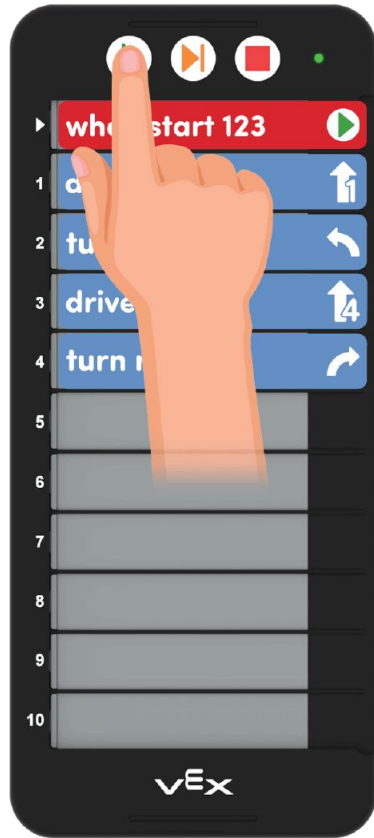
drive 4



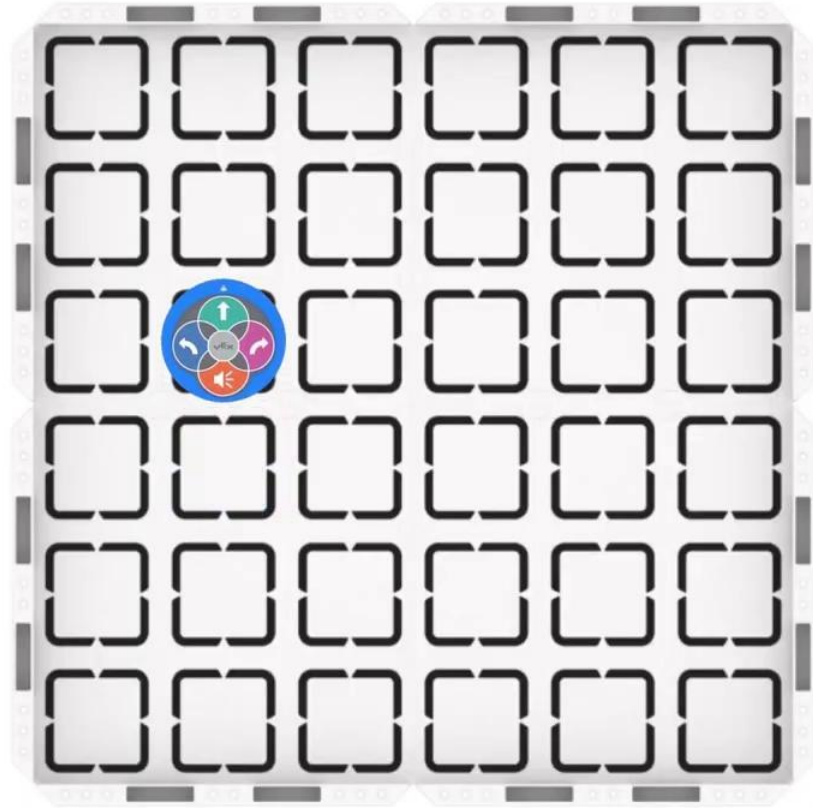
turn left



# Start the Coder and Observe the 123 Robot



# “Bugged” project behaviors



# Intended behavior - bugged project - solution

**Intended behaviors:**

**Bugged Project:**

**Solution:**

**Drive 1**

when start 123 

when start 123 

drive 1 

drive 1 

**Turn Left**

turn right 

turn left 

**Drive 4**

drive 4 

drive 4 

**Turn Right**

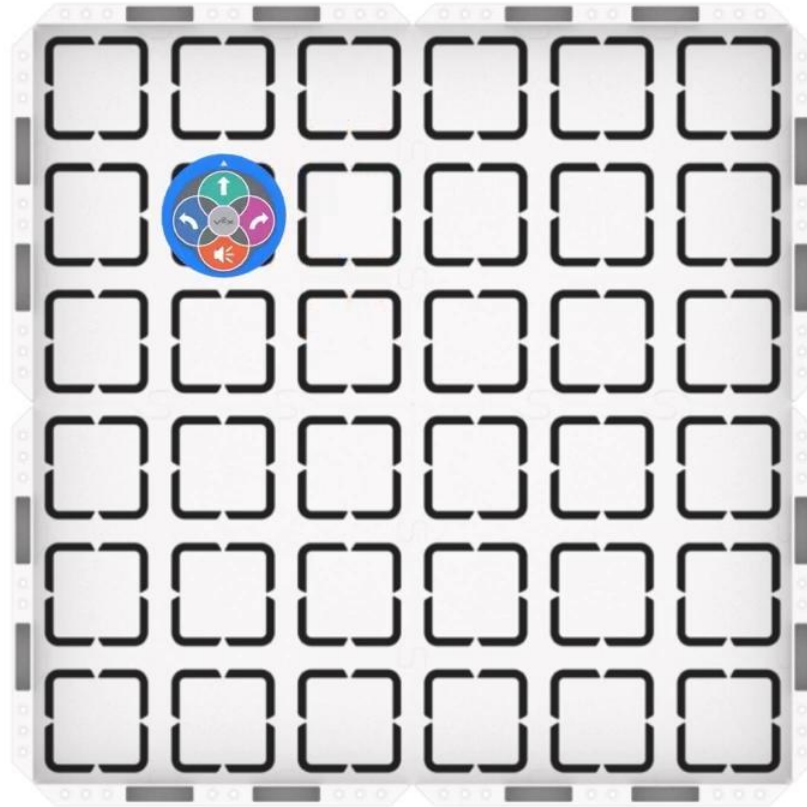
turn left 

turn right 

# Correct Coder cards



# Intended behavior



# Debugging Process



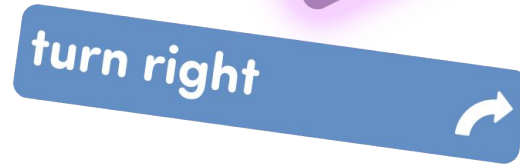
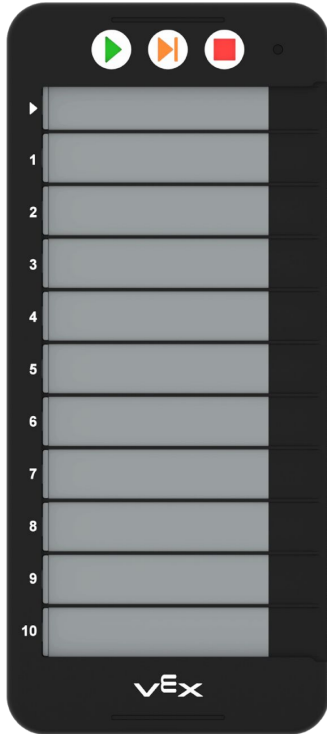
1. Start the Coder project.
2. Observe the 123 Robot.
3. Compare to the intended behaviors.



4. Use the Step feature and find an incorrect Coder Card.
5. Remove the wrong Coder card, and add the correct card.
6. Go back to the beginning and start again!



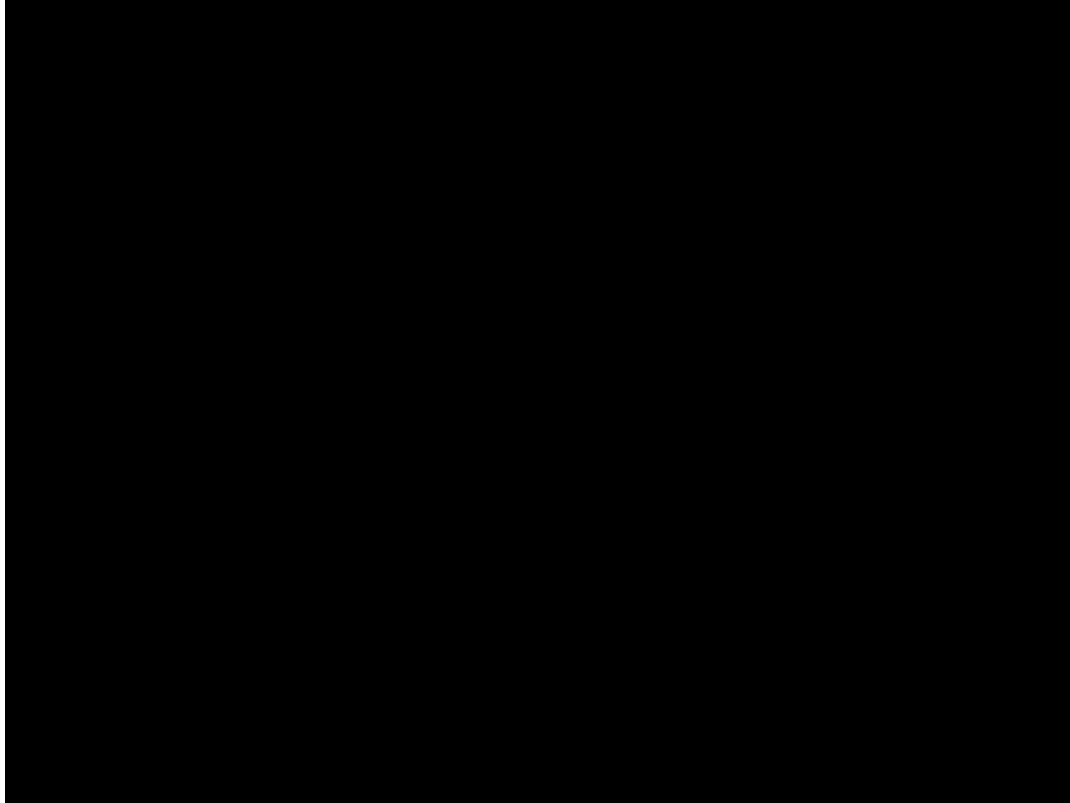
# Additional Coder Cards



# Start the mixed-up project



# “Bugged” project behaviors



# Intended behaviors - bugged project - solution

**Intended behaviors:**

**Drive 4**

**Turn Left**

**Play Honk**

**Drive 1**

**Turn Left**

**Glow Purple**

**Bugged Project:**

when start 123



drive 4



turn right



play honk



drive 1



turn left



glow purple



**Solution:**

when start 123



drive 4



turn left



play honk



drive 1



turn left



glow purple

