



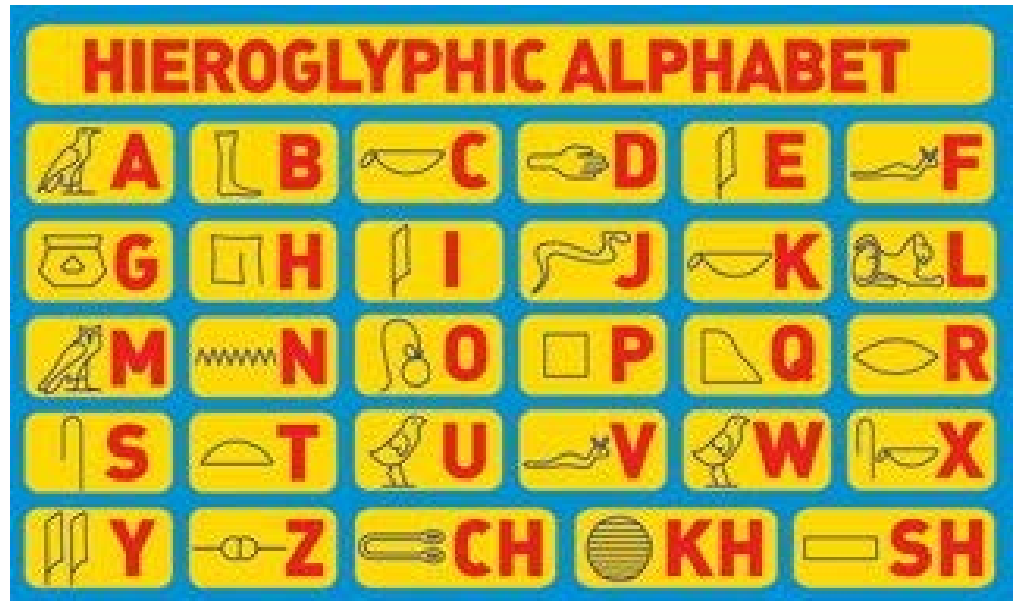
**FLORIDA POLYTECHNIC**  
UNIVERSITY

## **Coding and Programming**

**Education Outreach**

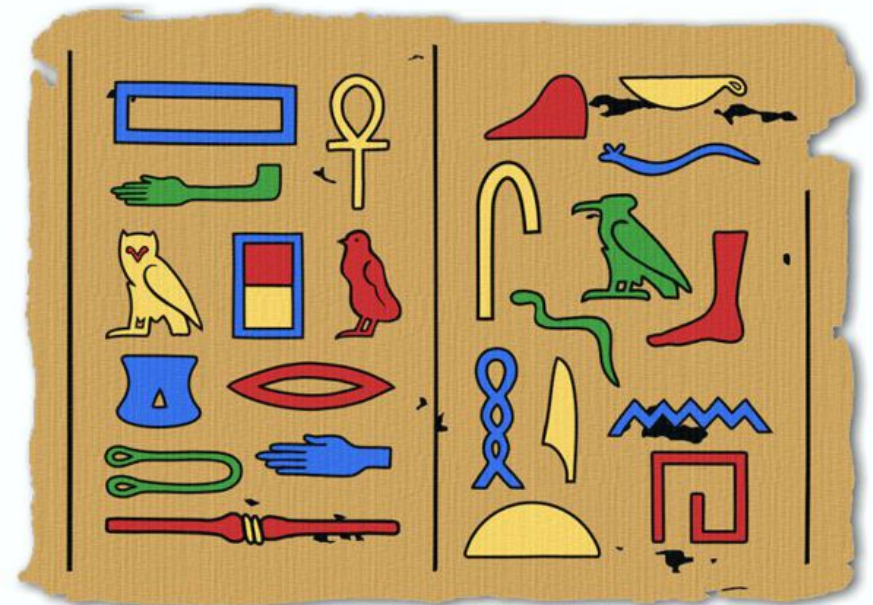
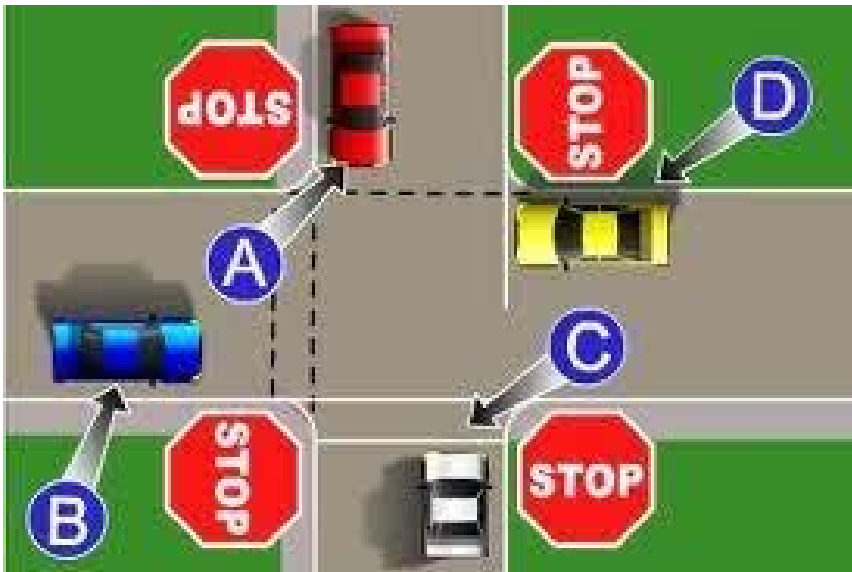
# Coding

- **Coding** the process of assigning a name to something for the purposes of classification or identification.
  - The letters and words that make up a language
  - Usually represented by a single word or symbol



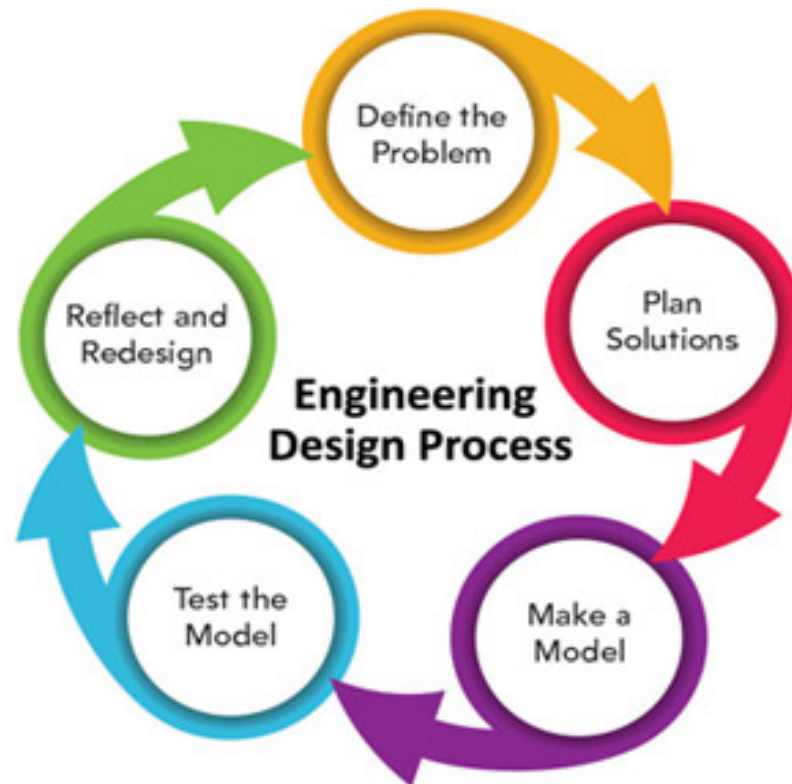
# Programming

- **Programming** is the process of creating a set of instructions or language that tell a computer how to perform a task.
  - Take the code, create a series of instructions and directions so that your robot, program, game, etc. will do something.
  - Think about an experiment... The program is the step by step directions of the procedures to make sure that the steps can be repeated.



# Design Process in STEM

- Robotics, programming, coding engineering and other field of STEM use a *design process* that follows a series of steps to solve a problem or challenge.



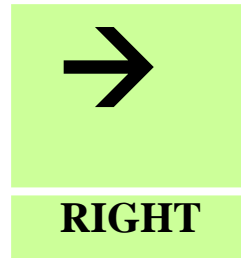
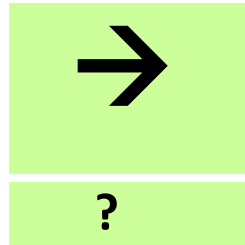
# MEET Coji















# CODE PLAN

- **First, your team will have to create a CODE PLAN. You team will assign a command to each of Coji's symbols. Example:**



# YOUR CODE PLAN

- Create the code for Coji's symbols



# YOUR CHALLENGE

- **Today, your challenge will be to help Coji travel from the classroom to the lunchroom.**
- **Along the way he has to**
  - 1. run an errand for his teacher**
  - 2. grab a snack and**
  - 3. follow all school rules including not walking on the grass.**



# Let's Get Started

## Getting Started

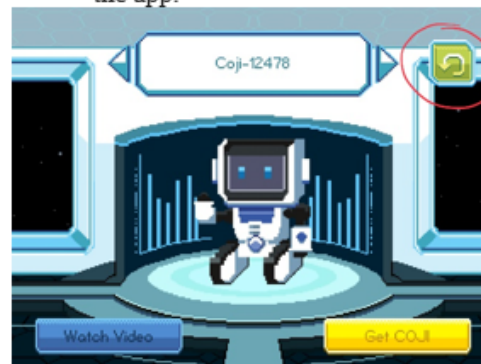
1. Turn Coji "on" by flipping the switch down



2. Find the Coji app on your tablet



3. Once you've opened the Coji app, pair your app with your robot.  
The robot number should appear on the screen. If it does not, you may have to refresh the app.



4. Pair the robot based on your tablet number (11-20) and your robot number (label on the side). You may have to scroll left or right to find your robot.



5. Once you've matched your robot with your tablet, tap on the robot in the center.



6. To get to the Main Menu, click "skip" in the top right corner







# Collect Data

- Next, you'll need to measure how far Coji moves for every command
- Example- Move Forward 1 spaces = 3 inches
- Move Forward \_\_\_\_\_ inches
- Move Backwards \_\_\_\_\_ inches



# TRAVEL PLAN

- Then, your team will create a TRAVEL PLAN for Coji by programming his movements using the code your team created.

Remember, Coji has to run an errand for the teacher, grab a snack and has to follow the rules so no cutting through the grass! He has to run the errand before he can get his snack.

- **TEAM GOALS:**

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- **RULES:**

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FLORIDAPOLY

# CREATE YOUR TRAVEL PLAN

START → →			
			
ERRAND 			
			FINISH



FLORIDAPOLY

# TEST YOUR TRAVEL PLAN

START			
			
ERRAND 			
			FINISH

Select a series of movements and expressions you would like Coji to do.



Click the "send" button to tell Coji what to do.

