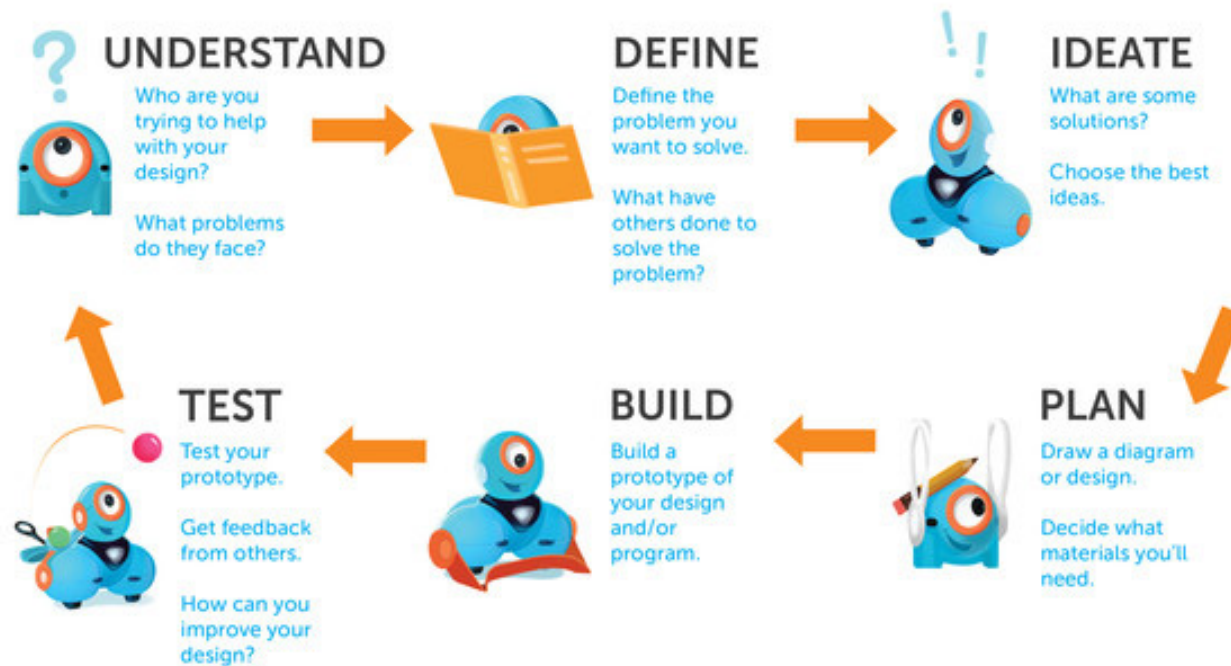


# The Design Thinking Process



## Design Thinking Workbook

Group Names: \_\_\_\_\_

# UNDERSTAND

## Problems

### Brainstorm Guidelines

- Work as a group to brainstorm real-world problems.
- Do not stop to discuss or judge ideas shared.
- Write down every idea exactly as it is stated.
- Number your ideas.

# Problems

List or draw your brainstorm real world problems here!

1.

2.

3.

# DEFINE the problem

- Discuss which problems are most important and why.
- Highlight the three most important problems.
- Select one problem to solve from the top three.

What problem did you choose?



# Explain the Problem

Explain your group's top problem in detail.

Why did you choose this problem? Why is it important to solve this problem?

# IDEATE solutions

## Directions

- Brainstorm possible solutions for a Dash accessory that might solve this problem.
- Do not stop to discuss or judge ideas shared.
- Discuss which solutions might work best.
- Highlight the three top solutions.
- Select one solution to try first.

# Solution Brainstorm

List or draw your Dash accessory solution ideas here!

# Explain the Solution

Explain your group's top solution in detail.  
How will it work? What will it look like?



# PLAN & BUILD

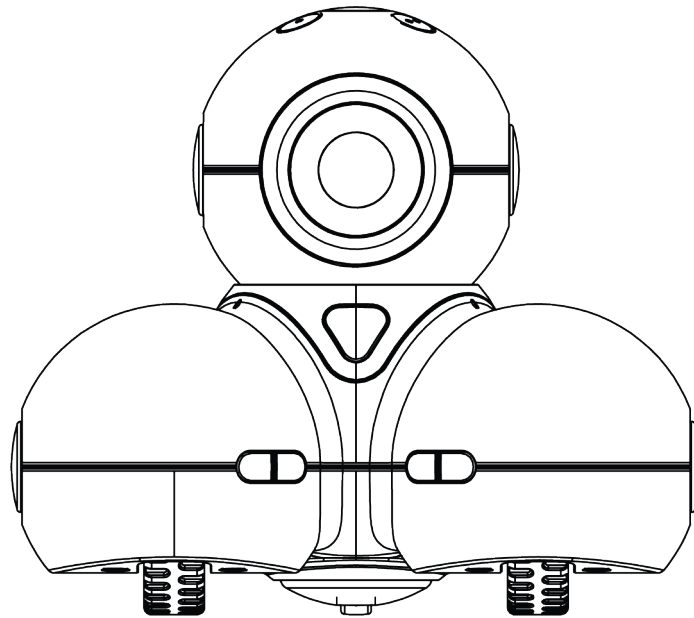
## your prototype

### Directions

- Determine team roles. Who will be the Documentarian? Who will be the Builder? Who will be the Programmer?
- Design the accessory.
- Make a list of the materials you'll need.
- Build your design.

# Design the Accessory

What will your accessory look like on Dash?



# Materials List

What materials will you need to build your accessory?

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

# TEST

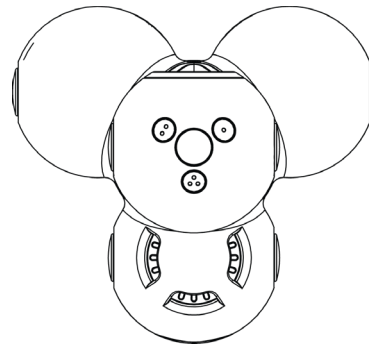
## your prototype

### Directions

- Program Dash to test and demonstrate your accessory.
- Identify any mistakes.
- Get feedback from other groups and from your teachers.
- Use the feedback to improve your design.

# Plan Your Code

How will Dash demonstrate or show off your design?



# Record Your Results

What happened? Did you need to fix any mistakes?  
How can you improve your design?