

DROID DECEMBER

Intro to Programming: Expressions
Kathleen Mazurek 2015



Today's Challenge:

Today, we will design a **robotic pet** that can be used in a hospital for therapy.

Our pet will be free of allergens and safe to comfort all of the patients to use.

1. Design your pet's **appearance** by researching images in Google image search.
2. Design **icons for expressions** your robot will perform to 'act' like a pet.

What is an **expression**?

Expressions are functions performed by a **programming language** or code.

Examples:

“run” “bark” “stay”

In Tynker: “move” “jump” “stop”

What is a therapeutic pet?

Paro:

<https://vimeo.com/50828974>

What expressions were programmed for Paro?

Each table will get tablets to share. Research the type of pet you would like to design. Sketch your pet in the box. If you need help, there is a model on the back page where you can build your drawing.

After you have finished your drawing, design the buttons the owner or doctor would press to control your pet.

ROBO PETS

Name: Ms. Mazurek





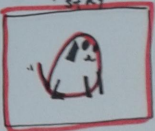

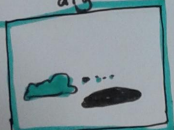
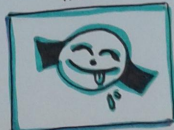
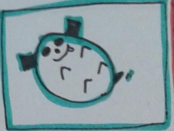

① Research a pet for your Robo Pet design.

"My pet is a robo-beagle

② Sketch the features on the model: (if you need to, use the on the back to start

- eyes
- tail
- ears
- fur/scales/feathers
- mouth
- nose

EXPRESSIONS BANK

bark 	run 	stay 	fetch 
dig 	lick 	roll 	guard me 

Program commands for your pet.



If you need help getting started on your sketch there is a skeleton provided on the back of your worksheet.

DROID DECEMBER

Intro to Programming: Expressions and Sequences
2015 Kathleen Mazurek



Today's Challenge:

Today, we will write a sequence for our robot pet in our code books and practice writing code for the Finch so we can create a conversation using *expressions and sequences*.

3:30-3:40--Homework

3:40-3:50-Make Code Notebook

4:00-4:15-Sketch Finch Interface

Write Sequence for LED and Audio

4:15-4:30-Station Set Up; Start Testing Sequences

4:40-5:00- Dinner

5:00-5:25-Homework Help/Stations

-Finish Testing Sequences

5:25- Dismissal

What is are **expressions and sequences?**

Expressions are functions performed by a programming language or code.

Examples:

“run” “bark” “stay”

Sequences are chains of expressions the perform the function.

(when flag clicked)+(move)+(move)+(jump)

Today, we are going to practice programming sequences into a finch so it can draw with a marker.

Today, we are going to practice programming movement.

Tomorrow, we will use precise measurements to program a letter.

First, we will brainstorm and write our code in our code book.

Then, we will test the code as a group. It is important that we watch what other people do, we can learn new ideas. Also, the most focused students can document the experiment with iMovie and edit the footage during station time.

DROID DECEMBER

Intro to Programming: Expressions
Kathleen Mazurek 2015



Today's Challenge:

Today, we will write code for our robot pet and use code to program the Finch to draw a letter.

What is are **expressions and sequences?**

Expressions are functions performed by a programming language or code.

Examples:

“run” “bark” “stay”

Sequences are chains of expressions the perform the function.

(when flag clicked)+(move)+(move)+(jump)

Today, we are going to practice programming sequences into a finch so it can draw with a marker.

Today, we are going to practice programming movement.

Tomorrow, we will use precise measurements to program a letter.

First, we will brainstorm and write our code in our code book.

Then, we will test the code as a group. It is important that we watch what other people do, we can learn new ideas. Also, the most focused students can document the experiment with iMovie and edit the footage during station time.