OurKidsCode
FAMILY CODING CLUBS

Pet

Design and make an electronic 'pet' that reacts to the way you 'care' for it. Loud noises will make it scared, a touch to it's nose (the logo on the Micro:bit) will calm it.

What you need

- ☐ Scissors
- ☐ Furry fabric & googly eyes
- ☐ Cardboard & sticky tape
- ☐ MicroBit

ourkidscode.ie/pet

1 Set up

- Explain being positive to new members
- Look at project and agree jobs

2 Warm up

Decide who will play the following:

1. Owner of the pet
2. Pet's mouth
3. Pet's heartbeat

The owner of the pet can make loud noises to scare the pet or touch their nose to calm them. The pet's mouth has to smile when calm and look sad when scared.

The pet's heartbeat has to make a beep sound once a second when calm and faster when scared.

Pet becomes calm (function)

```
function Pet becomes calm

  set mouth to [create image]

  set heartbeat to 60

  play hello until done
```

Pet becomes anxious (function)

```
function Pet becomes anxious

  set mouth to [create image]

  set heartbeat to 120

  play sad until done
```

Show vital signs (function)

```
function Show vital signs

  show image mouth at offset 0 +

  play tone High C for 1/4 beat until done

  pause (ms) 60000 / heartbeat
```

```
on start
  call Pet becomes calm
```

```
forever
  call Show vital signs
```

```
on loud sound
  call Pet becomes anxious
```

```
on logo touched
  call Pet becomes calm
```

Connect to the MakeCode website: **makecode.microbit.org**

1. Click on 'New Project'.

2. Name it 'Pet'.

3. Find the pieces in the middle column under Advanced / Functions, Variables, Advanced / Images, Music and Basic.

4. Start by making the three functions. (sub programs).

Test the program

Drag the microphone slider up on the picture of a MicroBit on the left of the screen. See if it then shows a sad face. Then try clicking the MicroBit logo and see if that makes it happy again.

1. Cut a piece of cardboard more than twice the size of the Micro:bit to fold over and make a 'skeleton'.

2. Before sticking the battery pack and Micro:bit into the skeleton, cut a window in the cardboard for the Micro:bit's LEDs, buttons and logo symbol to be seen.

3. Cut a piece of furry fabric big enough to cover the skeleton with skin.

4. Fold and make two cuts to create a hole as big as your window for the Micro:bit.

5. Push the 'wings' through the window and stick to the inside of your skeleton.

6. Cut some more pieces of fabric to make ears.

7. Stick it all together!

Maker job

You can make the skeleton any shape and add other parts such as horns - use your imagination!

Reviewer job

Once the code is downloaded, test the finished pet by making loud noises and see if it is scared.

Try to make it calm by touching the MicroBit's logo.

4 Share

Play with what you have made.

Show it off to everyone else!

Look at everyone else's work and ask how it went for them.

5 Reflect

Please **fill in the reaction form** once for each person:

ourkidscode.ie/reaction

Discuss with everyone in the room what you felt and what could you do in future.

Did you have fun?

Learn anything? More confident?

Think you and your family might like to do more?

6 Plan

At the end of every MeetUp, families plan the next one by choosing a project to work on and deciding who will do which tasks to organise it.

Make some notes here.

You will find these useful documents on our website:

*   Running a MeetUp
*   MeetUp Checklist
*   Being a positive club
*   Forming a family team
*   Choosing Projects
*   Choosing a Warm Up

ourkidscode.ie/run-a-club/

contact@ourkidscode.ie

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