Purple Parrots

GIRLS SOLVE IT

GSIT Quest 2 Solution

By Harper, Keira, Lea, Libby

For Quest 2 Lea was back and able to help us! Our favorite challenge was 1 because it was the easiest. We liked Bonus 2 because the random blocks made Finch behave differently every time.
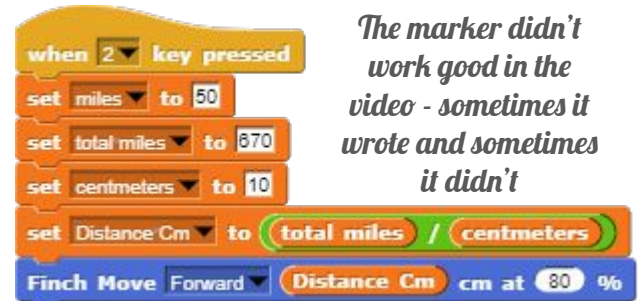
Challenge 2

We think we did this challenge right but we were a little confused by the instructions. We decided we wanted 1cm to equal 67 miles meaning if we traveled 670 miles we'd travel 67 cm across the paper. We did not understand how to use our miles variable but included it because it was in the instructions.

Challenge 1

Our goal for challenge one was to use the LED lights to show Finch as happy and anxious. This was the easiest challenge. Our code is below:
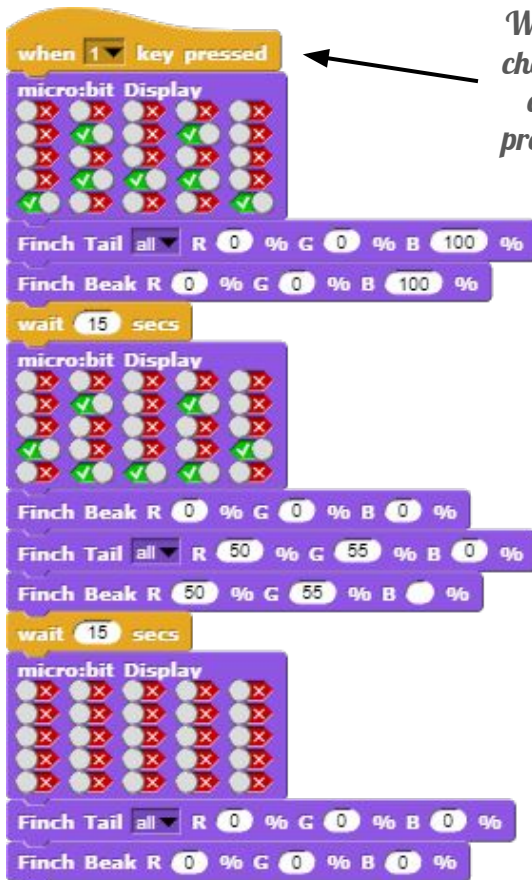
We made it so each challenge within the quest got run by pressing it's number

The marker didn't work good in the video - sometimes it wrote and sometimes it didn't

Challenge 3

We have more details on what we did for challenge 3 on the next page but wanted to show the number how we called it. We basically read the Finch light sensors and take different actions.
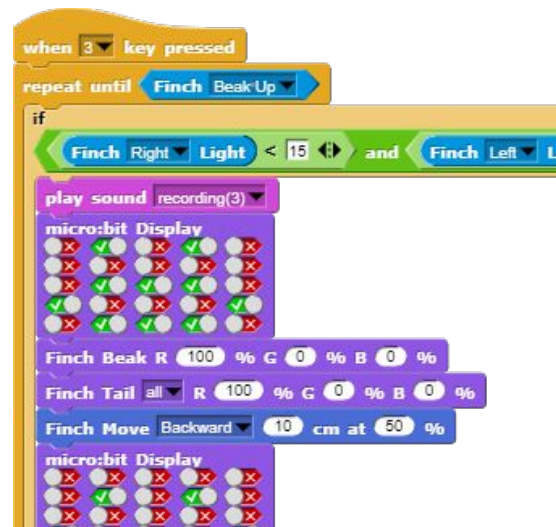
We had fun adding to the script for this one - Keira played Finch and made up fun things to say.

Challenge 3

We ran into an issue where the code only went once but we wanted it to repeat for the video so we put in a repeat until Finch Beak Up

```
when 3 ▾ key pressed
repeat until (Finch Beak Up ▾)
  if
    (Finch Right ▾ Light) < 15 ◄► and (Finch Left ▾ Light) < 15 ◄► ◄►
    play sound recording(3) ▾
    micro:bit Display
    Finch Beak R 100 % G 0 % B 0 %
    Finch Tail all ▾ R 100 % G 0 % B 0 %
    Finch Move Backward ▾ 10 cm at 50 %
    micro:bit Display
    Finch Beak R 35 % G 55 % B 0 %
    Finch Tail all ▾ R 35 % G 55 % B 0 %
  else if ◄►
    if (Finch Right ▾ Light) < 15 ◄►
      play sound recording(2) ▾
      micro:bit Display
      Finch Beak R 100 % G 0 % B 0 %
      Finch Tail all ▾ R 100 % G 0 % B 0 %
      Finch Turn Right ▾ 90 ° at 100 %
      Finch Turn Left ▾ 180 ° at 75 %
      Finch Move Forward ▾ 10 cm at 50 %
      micro:bit Display
      Finch Beak R 35 % G 55 % B 0 %
      Finch Tail all ▾ R 35 % G 55 % B 0 %
    if (Finch Left ▾ Light) < 15 ◄►
      play sound recording ▾
      micro:bit Display
      Finch Beak R 100 % G 0 % B 0 %
      Finch Tail all ▾ R 100 % G 0 % B 0 %
      Finch Turn Left ▾ 90 ° at 100 %
      Finch Turn Right ▾ 180 ° at 75 %
      Finch Move Forward ▾ 10 cm at 50 %
      micro:bit Display
      Finch Beak R 35 % G 55 % B 0 %
      Finch Tail all ▾ R 35 % G 55 % B 0 %
```

We have lots of bonus actions - this one is where the hawk is on both sides so Finch backs up.

We also use the tail and beak and micro:bit lights to show Finch is scared

This is the code when the hawk is over the right light sensor

This is the code when the hawk is over the left light sensor

```
micro:bit Display
Finch Beak R 0 % G 0 % B 0 %
Finch Tail all ▾ R 0 % G 0 % B 0 %
```

When all done we remembered to turn off all the lights :)

Bonus 1

Our bonus code for challenge #3 is identical except we put in random numbers for the beak/tail LEDs and the movement.

```
when 3 ▾ key pressed
repeat until (Finch Beak Up ▾)
  if
    (Finch Right ▾ Light) < 15 ◄► and (Finch Left ▾ Light) < 15 ◄► ◄►
    play sound recording(3) ▾
    micro:bit Display
    Finch Beak R (pick random 1 to 10) % G (pick random 1 to 10) % B (pick random 1 to 10) %
    Finch Tail (pick random 1 to 10) R (pick random 1 to 10) % G (pick random 1 to 10) % B (pick random 1 to 10) %
    Finch Move (pick random 1 to 10) 10 cm at (pick random 1 to 10) %
    micro:bit Display
    Finch Beak R 35 % G 55 % B 0 %
    Finch Tail all ▾ R 35 % G 55 % B 0 %
  else if ◄►
    if (Finch Right ▾ Light) < 15 ◄►
      play sound recording(2) ▾
      micro:bit Display
```

Bonus 2

We thought this one was actually easier than doing challenge 2 the first time. We took our total distance and divided by 3. Then we ran that code 3 times. We set the speed slower each time.

```
when 2 ▾ key pressed
set miles ▾ to 50
set total miles ▾ to 670
set centmeters ▾ to 10
set Distance Cm ▾ to (total miles / centmeters)
Finch Move Forward ▾ (Distance Cm / 3) cm at 80 %
Finch Move Forward ▾ (Distance Cm / 3) cm at 50 %
Finch Move Forward ▾ (Distance Cm / 3) cm at 20 %
```

The merker kind of worked for our bonus!