

Obstacle Detection. The Finch has two Infrared sensors. These sensors can detect obstacles in front of the Finch. The sensors are digital and so act as virtual bumpers - they do not provide information on the distance to an obstacle, but simply register whether an obstacle exists. The sensor detection range is between 3 and 12 inches. Due to the limitations of this type of sensor very narrow objects or objects made of certain black plastics may not register as obstacles.

Follow the Hand: As long as the Finch is level:

1. If the Finch sees something on both the left and the right it should move forward
2. Otherwise:
 1. If there is an obstacle on the right, it should turn right
 2. If there is an obstacle only on the left, it should turn left
3. If there is nothing detected, it should sit and wait

Can you put the pieces together so they make sense?

```
when clicked
repeat until
  if
  else
    if
    if
  if
```

```
not Finch Orientation = level
```

```
not Finch Left Obstacle and Finch Right Obstacle
```

```
not Finch Left Obstacle and not Finch Right Obstacle
```

```
Finch Left Obstacle and not Finch Right Obstacle
```

```
Finch Left Obstacle and Finch Right Obstacle
```

```
Stop Finch
```

```
Move Finch Left: 0 Right: 0
```

```
Move Finch Left: 0 Right: 80
```

```
Move Finch Left: 80 Right: 80
```

```
Move Finch Left: 80 Right: 0
```