

This is a sensor that detects if something is within about 3cm of the bot.

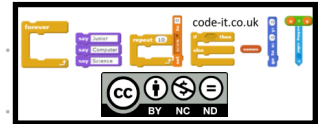
InO-bot has four of these. Move your hand slowly towards the sensor to activate it.

Repeat while true works in the same way as a forever loop in Scratch, The code inside this loop will be repeated over and over

```

repeat while true
do
  if has obstacle
  do
    Play sound # 3
  else
    Play sound # 1
  
```

What sound will play if there is an obstacle in front of the sensor?



Name _____ Class _____

The program above has been adapted below

Colours are made up by mixing red green and blue between 0-255

```

repeat while true
do
  if has obstacle
  do
    RGB light (1-8) 4 red 255 green 0 blue 0
  else
    RGB light (1-8) 4 red 0 green 0 blue 255
  
```

What number light will illuminate if an obstacle is detected?

What colour will light up if there is no obstacle in front of the sensor?

What block of code makes sure the condition is checked over and over again?

Further Challenges

- Create these blocks of code and test them on the InO-bot.
- Can you mix a new colour by changing 0-255 in red, green & blue?
- Can you adapt the sound code to make a different collision sensors play a different sound?
- Can you adapt the sound code so that all four sensors plays a different sound?
- Can you adapt the light code to make all four collision sensors light up a different light?
- Can you adapt code so that bot moves forward slowly and use the collision sensors at the front to stop it bumping into things?

Tick when complete