






Link to view completed Scratch Program: <https://scratch.mit.edu/projects/23684556/#editor>

Inspector Sprite

 Inspector Neutral	 Inspector Concerned	 Inspector Happy
--	--	--

Code Overview

```

when green flag clicked
  set Temperature to 0
  broadcast noReading
  switch costume to Scientist-01 - Neutral
  say I am from health and safety. I would like to check the Temperature in your classroom. Press spacebar to continue.

when space key pressed
  broadcast noReading
  set Temperature to 0
  switch costume to Scientist-01 - Neutral
  ask What is the Temperature in your classroom in degrees Celsius? and wait
  set Temperature to answer
  if Temperature > 29 then
    switch costume to Scientist-01 - Concerned
    broadcast highReading
    play sound Fwef
    say Wow! It's hot in here! Extreme heat may cause you to feel dizzy, thirsty or tired. You might become more aggressive and moody. for 6 secs
    say Please make sure you are drinking lots of water to stay hydrated. for 4 secs
  else
    if Temperature > 19 then
      switch costume to Scientist-01
      broadcast mediumReading
      play sound clapping
      say This is a comfortable temperature. for 4 secs
    else
      switch costume to Scientist-01 - Concerned
      broadcast lowReading
      play sound Brr
      say It's cold in here! You should turn up the heat or make sure you are wearing enough clothing to keep you warm. for 5 secs
    
```





Code Explained

When the **Green Flag** is clicked

When the **Green Flag** is clicked, the program will begin and the following will happen:

The **Temperature Variable** (created under the **Data** tab in the **Scripts** area) is given a starting value of zero. For more about Variables, see the [glossary](#).

The message **noReading** is transmitted (broadcast) to the other **Sprites**. This will cause the **Indicator Sprite** to change its **Costume** (see the [Indicator Sprite code](#) below for more information).

The Inspector Sprite's costume changes (switches) to the **Neutral** pose.

The **Inspector Sprite** says the text in the white box. In this instance, it provides context and instructions for the user.

When the **space key** is pressed

This is an example of an **Event**. For more about **Events**, see the [glossary](#). When the **space key** is pressed, the following will happen (the first three blocks are for "resetting" the program):

The message **noReading** is transmitted (broadcast) to the other **Sprites**. This will cause the **Indicator Sprite** to change its **Costume** (see the [Indicator Sprite code](#) below for more information).



set Temperature ▾ to 0

The **Temperature Variable** (created under the **Data** tab in the **Scripts** area) is given a starting value of zero.

switch costume to Scientist-01 - Neutral ▾

The **Inspector Sprite's** costume is changed (switched) to the neutral pose.

ask What is the Temperature in your classroom in degrees Celsius? **and wait**

The **Inspector Sprite** asks the question in the white box and waits until the user types a response in the text field and presses enter (the **Ask** block is found under **Sensing** tab in the **Scripts** area).

set Temperature ▾ to answer

The value entered in the text field by the user is stored in the **Variable** called **Temperature**.

If-Then-Else Statements

if then
else

The **If-Then-Else** block is a decision structure. It is found under the **Control** tab in the **Scripts** area.

The If-Then-Else block is an example of a Conditional Statement. For more about Conditionals, see the [glossary](#).

>

The green block is a **Comparison Operator** and can be found under the **Operators** tab in the **Scripts** area.

*For more about **Operators**, see the [glossary](#).*

if > **then**
else

When an operator block is placed in an **If-Then-Else** block, it creates a conditional statement.



If True Then...

```

if Temperature > 29 then
  switch costume to Scientist-01 - Concerned
  broadcast highReading
  play sound Fwef
  say Wow! It's hot in here! Extreme heat may cause you to feel dizzy, thirsty or tired. You might become more aggressive and moody. for 6 secs
  say Please make sure you are drinking lots of water to stay hydrated. for 4 secs
else

```

In this instance, the condition compares the **Temperature Variable** (set by the input of the user) to the number in the white box of the **Comparison Operator**. In this instance, if the **Temperature Variable** is greater than 29, the following things will happen:

```
switch costume to Scientist-01 - Concerned
```

The Inspector Sprite's costume is changed (switched) to the **Concerned** pose.

```
broadcast highReading
```

The message **highReading** is transmitted (broadcast) to the other **Sprites**. This will cause the **Indicator Sprite** to change its **Costume** (see the [Indicator Sprite code](#) below for more information).

```
play sound Fwef
```

A sound is played. In this instance, the sound played is the **Fwef** sound.

```
say Wow! It's hot in here! Extreme heat may cause you to feel dizzy, thirsty or tired. You might become more aggressive and moody. for 6 secs
```

```
say Please make sure you are drinking lots of water to stay hydrated. for 4 secs
```

The **Inspector Sprite** will **Say** the text in the white boxes. The text will display in a speech bubble for the number of seconds entered in the white circle. The text in the **Say** block is an example of a **String** - which is one type of data. *For more information about **Data**, see the [glossary](#).*

The rest of the code under the **Else Statement** is skipped.

Else...If...Then

If the above **If Statement** is **False** (i.e. the **Temperature Variable** is less than 29), the blocks under the **Else Statement** will activate.



```

else
  if Temperature > 19 then
    switch costume to Scientist-01 - Happy
    broadcast mediumReading
    play sound clapping
    say This is a comfortable temperature. for 4 secs
  else

```

In this case, there is another **If Statement** nested in the **Else Statement**. Like before, the condition compares the **Temperature Variable** (set by the input of the user) to the number in the white box of the **Comparison Operator**. If the **Temperature Variable** is greater than 19, the following things will happen:

```
switch costume to Scientist-01 - Happy
```

The Inspector Sprite's costume is changed (switched) to the **Happy** pose.

```
broadcast mediumReading
```

The message **mediumReading** is transmitted (broadcast) to the other **Sprites**. This will cause the **Indicator Sprite** to change its **Costume** (see the [Indicator Sprite code](#) below for more information).

```
play sound clapping
```

A sound is played. In this instance, the sound played is the **clapping** sound.

```
say This is a comfortable temperature. for 4 secs
```

The **Inspector Sprite** will **say** the text in the white box. The text will display in a speech bubble for the number of seconds entered in the white circle.

The rest of the code under the **else statement** is ignored.

Else...Else

If both of the **If Statements** above are **False** (i.e. the **Temperature Variable** is less than 29 and 19), the final **Else Statement** activates the code within it.



```

else
  switch costume to Scientist-01 - Concerned
  broadcast lowReading
  play sound Brr
  say It's cold in here! You should turn up the heat or make sure you a wearing enough clothing to keep you warm. for 5 secs

```

The following things will happen:

switch costume to Scientist-01 - Concerned

The Inspector Sprite's costume is changed (switched) to the **Concerned** pose.

broadcast lowReading

The message **lowReading** is transmitted (broadcast) to the other **Sprites**. This will cause the **Indicator Sprite** to change its **Costume** (see the [Indicator Sprite code](#) below for more information).







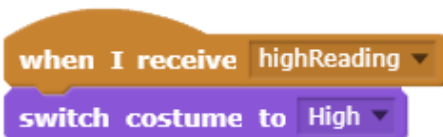
play sound Brr

A sound is played. In this instance, the sound played is the **Brr** sound.

say It's cold in here! You should turn up the heat or make sure you a wearing enough clothing to keep you warm. for 5 secs

The **Inspector Sprite** will **Say** the text in the white box. The text will display in a speech bubble for the number of seconds entered in the white circle.



Indicator Sprite			
Neutral	 Indicator Low	 Indicator Medium	 Indicator High
Code Explained			
 <p>When the Inspector Sprite broadcasts the noReading message, the Indicator Sprite will switch to the Neutral costume. This is the default costume in the program.</p>			
 <p>When the Inspector Sprite broadcasts the lowReading message, the Indicator Sprite will switch to the Low costume.</p>			
 <p>When the Inspector Sprite broadcasts the mediumReading message, the Indicator Sprite will switch to the Medium costume.</p>			
 <p>When the Inspector Sprite broadcasts the highReading message, the Indicator Sprite will switch to the High costume.</p>			