



runlinc Online Project A6: Information Voice Button (runlinc Online Version)

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This project uses runlinc online which can be found here:

<http://www.runlinc.com/online/control.html>

Make sure to right-click the link and click 'open in new tab'.

| | |
|-----------|---|
| Board IP: | http://runlinc.com |
|-----------|---|

Check that your board IP says <http://runlinc.com> as shown to the right. If it does not try clearing your site data.

This project does not require a runlinc Wi-Fi Inventors' Kit.

Introduction

Problem

How can we use AI technology to instruct people on something to be followed using voice commands? And How cool will that be if we can just one button?

Background

Through runlinc, you can learn how to program microchips to give instructions using voice commands. Microchips can monitor and warn people. For example, it can tell you when your laptop's battery is low or when you need to plug the cable in

It aids a disabled person to give instructions. We can use it as a promotional message to promote products.

People using public transport can press a button in the train station, which provides information on transportation services using voice commands.

It can create a language translator to help foreigners understand language and different situations.

Ideas

It is easy to implement voice code using simple code in runlinc.

Example: Think about the AI voice you hear in the elevator. We can use a similar technique for different occasions. Another example, where we can use AI voice is for entertainment purposes. We can use it to instruct the contestants on how to play the game or make AI voice say something when a user press correct or incorrect answer.

runlinc makes it simple and easy to implement the idea.

Plan

We want runlinc AI to be able to talk with us and others. First, we must provide some information about our AI in responding and talking. By creating input through our webpage, we make our AI talk with us.

runlinc Background

runlinc is a webpage inside the Wi-Fi chip. We can program in a browser, compared to programming inside the chip. The runlinc web page inside the Wi-Fi chip can instruct the microchips to sense, control, and log data of the Internet of Things (IoT) devices. It can also predict and command.

Program the project

Our code for this project will be written in the HTML and JavaScript box.

Part 1

HTML

The HTML code we will write are as follows.

```
<h1>Information Voice Buttons</h1>
<button onclick="AlertVoice();">INTRUDER</button>
<br>
<br>
<button onclick="Sisters();">STEMSEL SISTERS</button>
<br>
<br>
<button onclick="Happy();">HAPPY</button>
```

Code starts with a heading for our web page. You can put whatever you want between <h1> tags. Then buttons are created, which can be clicked and returns us some voice commands.

JavaScript

JavaScript code we will be using is as follow. We created functions that will respond once a user clicks a specific button.

```
function AlertVoice()
{
const speech = new SpeechSynthesisUtterance("Intruder Alert");
window.speechSynthesis.speak(speech);
}

function Sisters()
{
const speech = new SpeechSynthesisUtterance("STEMSEL Sisters will use runlinc to create gender Equality");
window.speechSynthesis.speak(speech);
}

function Happy()
{
const speech = new SpeechSynthesisUtterance("Ha Ha Ha Ha Ha Ho Ho Ho Ha Ha Ha");
window.speechSynthesis.speak(speech);
}
```

In “const speech” you will instruct on what you want AI voice to say when the user clicks on the button. You can add more commands if you want and test it.

Full Code

runlinc V1.1 Copyright and International Patent Pending. All rights reserved.

File

Load File Save

Board

Send Get

Run Code Stop Code Board IP:

| PORT | CONFIGURATION | NAME | STATUS |
|-------|---------------|----------------------|--------|
| A3 | DISABLED | <input type="text"/> | |
| B4 | DISABLED | <input type="text"/> | |
| B6 | DISABLED | <input type="text"/> | |
| C0 | DISABLED | <input type="text"/> | |
| C1 | DISABLED | <input type="text"/> | |
| C2 | DISABLED | <input type="text"/> | |
| C3 | DISABLED | <input type="text"/> | |
| C4 | DISABLED | <input type="text"/> | |
| C5 | DISABLED | <input type="text"/> | |
| C6 | DISABLED | <input type="text"/> | |
| C7 | DISABLED | <input type="text"/> | |
| GPIO0 | DISABLED | <input type="text"/> | |

Network Status: Active

HTML

```
<h1>Information Voice Buttons</h1>
<button onclick="AlertVoice();">INTRUDER</button>
<br>
<br>
<button onclick="Sisters();">STEMSEL SISTERS</button>
<br>
<br>
<button onclick="Happy();">HAPPY</button>
```

JavaScript Select Macro select a device Add Macro

```
function AlertVoice()
{
  const speech = new SpeechSynthesisUtterance("Intruder Alert");
  window.speechSynthesis.speak(speech);
}

function Sisters()
{
  const speech = new SpeechSynthesisUtterance("STEMSEL Sisters will use
runlinc to create gender Equality");
  window.speechSynthesis.speak(speech);
}

function Happy()
{
  const speech = new SpeechSynthesisUtterance("Ha Ha Ha Ha Ha Ho Ho Ha Ha
Ha");
  window.speechSynthesis.speak(speech);
}
```

JavaScript Loop Select Macro select a device Add Macro

Information Voice Buttons

INTRUDER

STEMSEL SISTERS

HAPPY

Figure 5: Full code of Information Voice Button

Challenge 1

Now that we have created the core code, we could do some changes to the code

Let us try creating another button. First name the label. We will use "Help" as the button label.

```
<button onclick="Help();">Help</button>
```

Add this to your HTML code.

So, your final HTML code should look as follow,

```
<h1>Information Voice Buttons</h1>

<button onclick="AlertVoice();">INTRUDER</button>
<br>
<br>
<button onclick="Sisters();">STEMSEL SISTERS</button>
<br>
<br>
<button onclick="Help();">Help</button>
```

```
<button onclick="Happy();">HAPPY</button>  
<br>  
<button onclick="Help();">Help</button>
```

Now let us make our JavaScript code accordingly.

```
function Help()  
{  
  const speech = new SpeechSynthesisUtterance("For more information please visit our website Thank you");  
  window.speechSynthesis.speak(speech);  
}
```

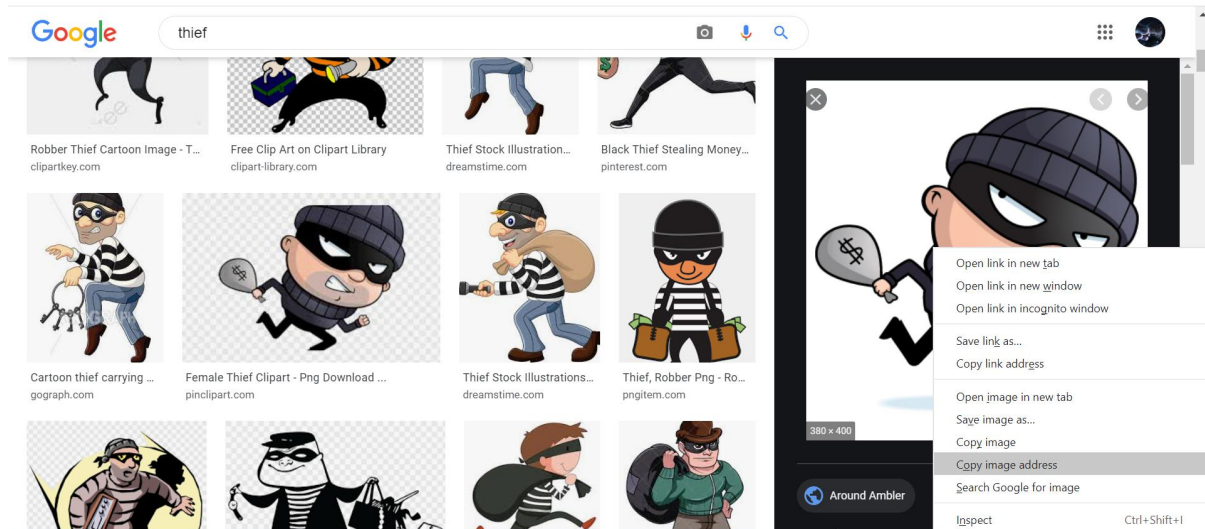
And your final JavaScript code should look as follow,

```
function AlertVoice()  
{  
  const speech = new SpeechSynthesisUtterance("Intruder Alert");  
  window.speechSynthesis.speak(speech);  
}  
  
function Sisters()  
{  
  const speech = new SpeechSynthesisUtterance("STEMSEL Sisters will use runlinc to create gender Equality");  
  window.speechSynthesis.speak(speech);  
}  
  
function Happy()  
{  
  const speech = new SpeechSynthesisUtterance("Ha Ha Ha Ha Ha Ho Ho Ho Ha Ha Ha");  
  window.speechSynthesis.speak(speech);  
}  
  
function Help()  
{  
  const speech = new SpeechSynthesisUtterance("For more information please visit our website, Thank you");  
  window.speechSynthesis.speak(speech);  
}
```

You can make changes to your code the way you like and can experiment with it.

Part 2

In part 2, we will add an image above the button. Go to <https://google.com>, search for an image, for example, a picture of warning for the intruder alert button. Click the image you like. Right-click on the selected image and copy the image address. See the picture below for the reference.



The copied address should look like this:

https://storage.googleapis.com/burbcommunity-aroundambler/2016/05/cliparti1_thief-clipart_09.jpg

To display an image in the webpage, we can use the tag. In src element, you can paste any image address you like. Add this code to HTML element above the intruder button.

```

```

Final Code should look as follow

```
<h1>Information Voice Buttons</h1>



<button onclick="AlertVoice();">INTRUDER</button>

<br>

<br>
```

```
<button onclick="Sisters ();">STEMSEL SISTERS</button>  
  
<br>  
  
<button onclick="Happy();">HAPPY</button>
```

Another way uploading image to your webpage is by using imgbb.

Go to google, search for an image, and copy the image address.

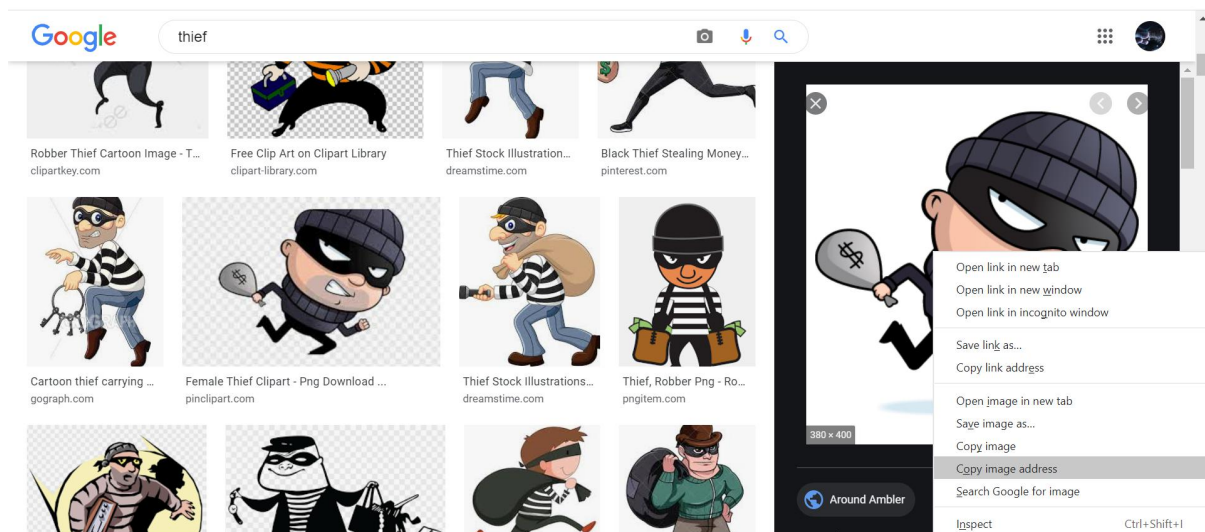
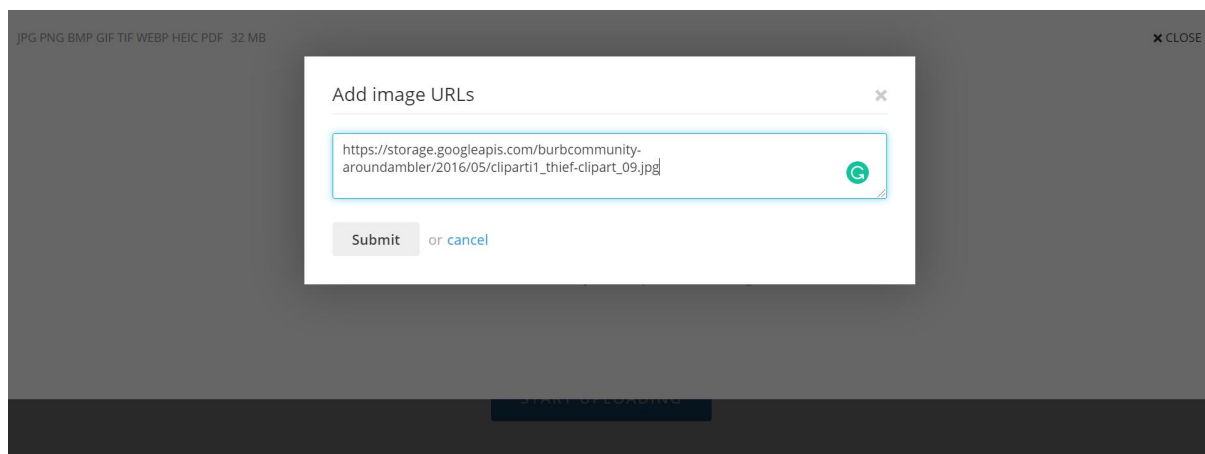
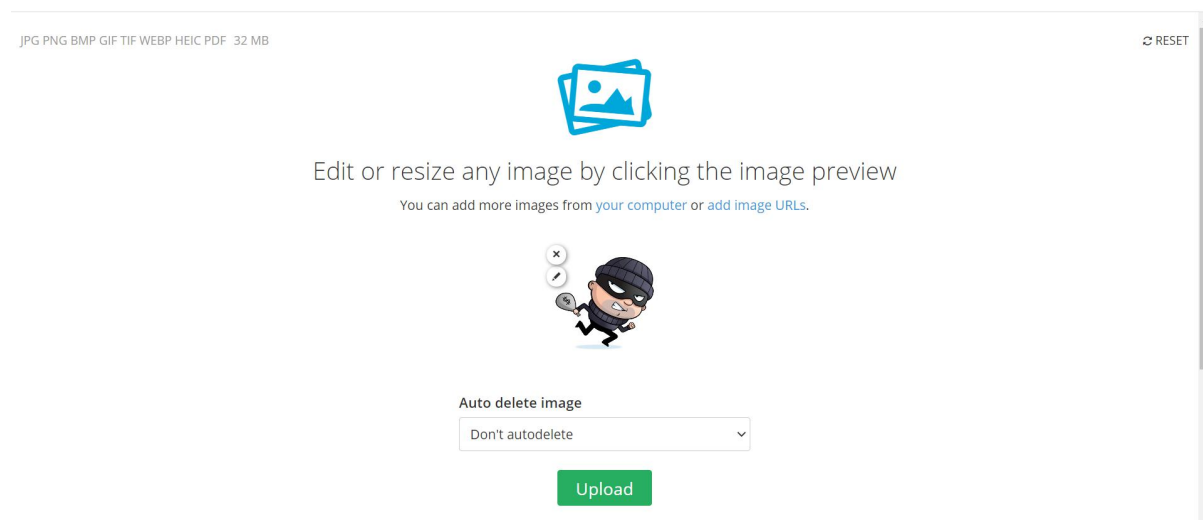


Image address should look like this: https://storage.googleapis.com/burbcommunity-aroundambler/2016/05/cliparti1_thief-clipart_09.jpg

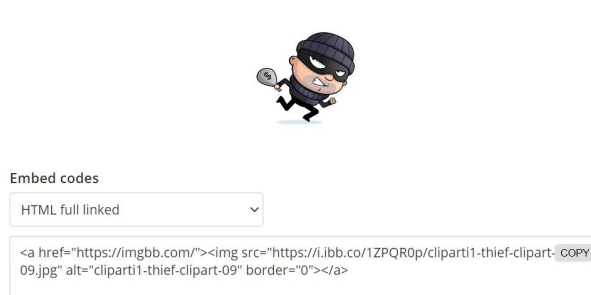
You copy the image address then go to <https://imgbb.com/upload>. If you want you can upload the image from your local storage, otherwise select add image URLs. Paste the URL of the image and click submit.



Now you can select upload, which will upload the image to the internet making it accessible via web apps.



In Embed code, select HTML full linked option.



Click on the copy, which will copy the HTML code.

Now in runlinc online, in HTML section, paste the copied HTML code above AlertVoice(); button. HTML Code should look like this.

```
<a href="https://imgbb.com/"></a>
```

Since we are not hyperlinking our image to another web page, we can remove <a> element from code. Below HTML code will work similarly to above one.

```
<img src= https://i.ibb.co/1ZPQR0p/cliparti1-thief-clipart-09.jpg>
```


Final HTML Code

```
<h1>Information Voice Buttons</h1>

<img src= https://i.ibb.co/1ZPQR0p/cliparti1-thief-clipart-09.jpg>
<button onclick="AlertVoice();">INTRUDER</button>
<br>
<br>
<button onclick="Sisters ();">STEMSEL SISTERS</button>
<br>
<br>
<button onclick="Happy();">HAPPY</button>
```

To make the image smaller and consistent, you can add this to the CSS section. We are setting height and width of the image 100px.

```
img {
  height : 100px;
  width : 100px
}
```

Full Code

runlinc online 1.200 Copyright and International Patents. All rights reserved. [chams](#) [Logout](#) [Help](#)

File

Load File

Save

Upload

Board

Send

Get

STEMSEL

| PORT | CONFIGURATION | NAME | STATUS |
|-------|---------------|----------------------|--------|
| A3 | DISABLED | <input type="text"/> | |
| B4 | DISABLED | <input type="text"/> | |
| B6 | DISABLED | <input type="text"/> | |
| C0 | DISABLED | <input type="text"/> | |
| C1 | DISABLED | <input type="text"/> | |
| C2 | DISABLED | <input type="text"/> | |
| C3 | DISABLED | <input type="text"/> | |
| C4 | DISABLED | <input type="text"/> | |
| C5 | DISABLED | <input type="text"/> | |
| C6 | DISABLED | <input type="text"/> | |
| C7 | DISABLED | <input type="text"/> | |
| GPIO0 | DISABLED | <input type="text"/> | |

Network Status: Active

CSS

```
img {
  height : 100px;
  width : 100px;
}
```

HTML

```
<h1>Information Voice Buttons</h1>
<h2> Press the buttons under the pictures to get AI voice information
</h2>


<button onclick="AlertVoice();">INTRUDER</button>
<br>
<br>

<button onclick="Sisters();">STEMSEL SISTERS</button>
<br>
<br>

<button onclick="Happy();">HAPPY</button>
<br>
<br>

<button onclick="Help();">Help</button>
```

JavaScript

```
function AlertVoice()
{
  const speech = new SpeechSynthesisUtterance("Intruder Alert");
  window.speechSynthesis.speak(speech);
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function Sisters()
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  const speech = new SpeechSynthesisUtterance("STEMSEL Sisters will use
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function Happy()
{
  const speech = new SpeechSynthesisUtterance("Ha Ha Ha Ha Ha Ho Ho Ha Ha
Ha");
  window.speechSynthesis.speak(speech);
}

function Help()
{
  const speech = new SpeechSynthesisUtterance("For more information please
visit our website, Thank you");
  window.speechSynthesis.speak(speech);
}
```

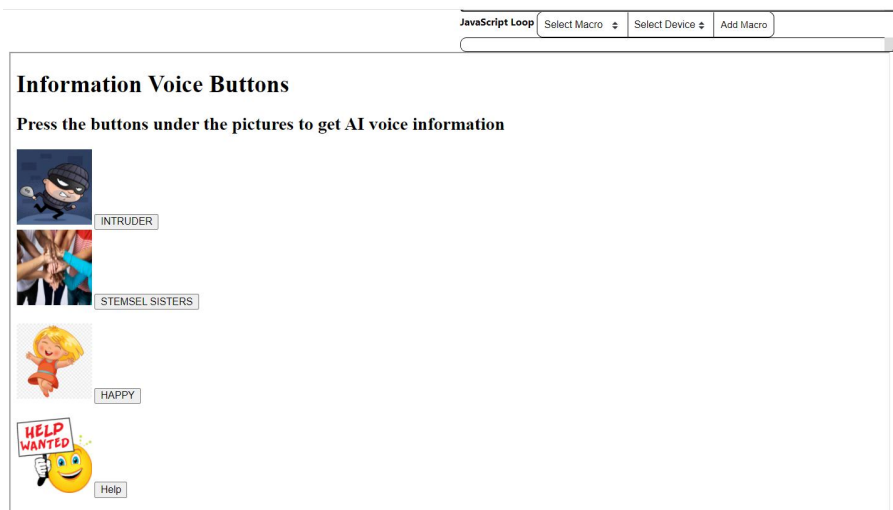
JavaScript Loop

Information Voice Buttons

Press the buttons under the pictures to get AI voice information



Final Outcome



Challenge 2

Now, as a challenge, you can add images above other buttons. Example: pictures of places, animals, yourself, or photos from your phone if you can upload or access it from the internet.

Summary

runlinc can be a stand-alone programming environment. With the fewer lines code, you can create great AI Projects.