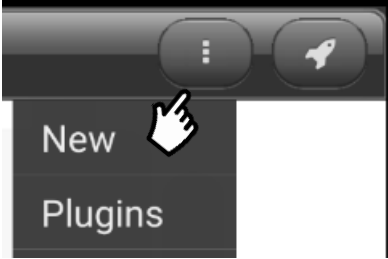
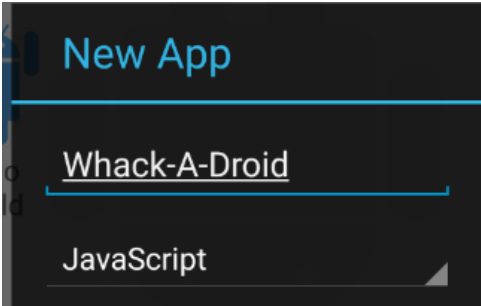
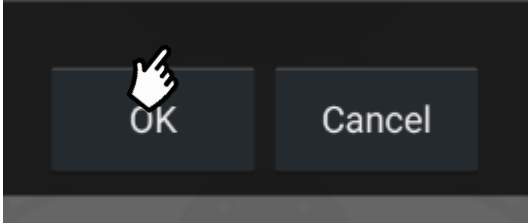




# Whack-A-Droid




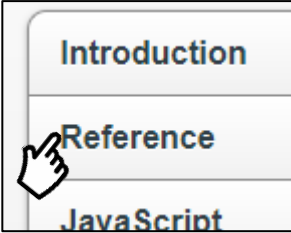
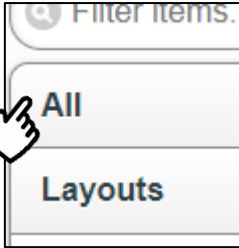

Welcome to the Whack-A-Droid Tutorial! Read on to learn about **Images**, **TextToSpeech**, **Positions**, **Backgrounds**, **Keeping Score** and **Intervals**

## Step 1 – Creating a New App

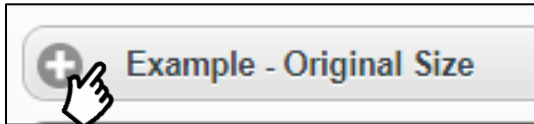
<p><b>Create a new JavaScript App</b></p> 	<p><b>Call it Whack-A-Droid</b></p> 	<p><b>Click OK</b></p> 
---	--	---

	<p>If you <b>Run</b> your new App by clicking on the icon. You should see it says <b>Hello</b> on the screen. When you are finished press the back arrow to exit</p>	
---	--	---

## Step 2 – Insert an Image of a Droid

<p><b>Open the Docs</b></p> 	<p><b>Select Reference</b></p> 	<p><b>Click All</b></p> 	<p><b>Type Image into the filter and Click the CreateImage</b></p> 
---	--	--	--

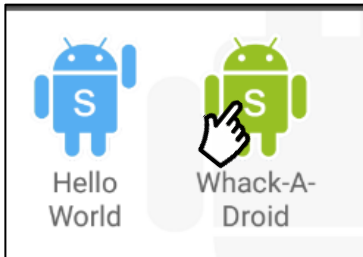
Find the first example – **Original Size**



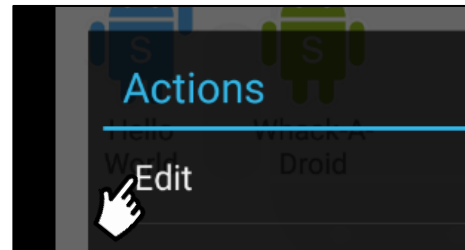
Click the **Copy All** button to save it to your clipboard



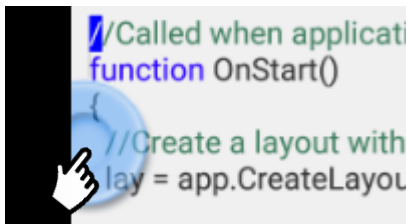
Open your app for editing by **long pressing** the App Picture



Click **Edit** in the menu that pops up



Make sure the **yoyo cursor** is at the top, then **double tap** it to bring up the Menu



Click **the hand** at the top and then **drag** the yoyo to highlight **the whole script**.



Now click the **bottom icon** to paste over the top of it



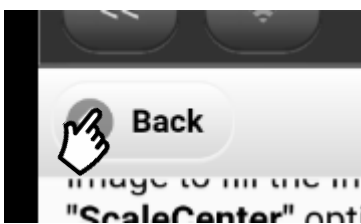
To run your app from the editor, click the play button at the bottom. You should see an **image** now

**What happens when you touch the image?** Try changing what he says to something else.

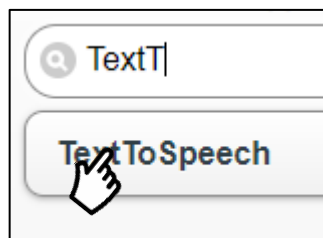


### Step 3 – Give the Droid a Voice

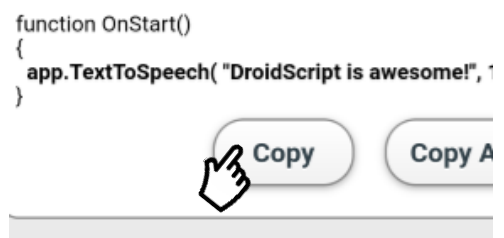
In the **Docs**, press **back**



This time type **TextToSpeech** and select it



This time press **Copy**, this will copy only the bold lines



Paste the code into your App, replacing the line that says **'app.ShowPopup'**. Then run your app and touch the Droid.

```
function img_OnTouch( ev )
{
  if( ev.action=="Down" )
    app.ShowPopup( "Ouch!" );
}
```



```
function img_OnTouch( ev )
{
  if( ev.action=="Down" )
    app.TextToSpeech( "Ouch!", 1.0, 1.0 );
}
```

## Step 4 – Change the Image

Change the Image **File Name** from **Droid1.png** to **Hello.png**

```
img = app.CreateImage( "/Sys/Img/Droid1.png" );
img.SetOnTouch( img_OnTouch );
```



```
img = app.CreateImage( "/Sys/Img/Hello.png" );
img.SetOnTouch( img_OnTouch );
```

Now run your app and you should see a **different larger Image**



## Step 5 – Change the Background

Add a new **SetBackground** line below the line that says **'CreateLayout'** like this:-

**Now run your app.**



```
function OnStart()
{
  lay = app.CreateLayout( "Linear", "VCenter,FillXY" );
  lay.SetBackground( "/Sys/Img/StarField.jpg" );
  img = app.CreateImage( "/Sys/Img/Droid1.png" );
}
```

## Step 6 – Make him Move

Write a new piece of code at the **very bottom of your App** like this:-



```
function Move()
{
  var x = Math.random();
  var y = Math.random();

  img.SetPosition( x, y );
}
```

Change the line of code that says **'app.CreateLayout'** to look like this:-



```
lay = app.CreateLayout( "Absolute", "FillXY" );
```

Now add a new line of code just **below the 'app.AddLayout'** line.

**Run your App and see what happens.**

You should see the Droid teleporting to various parts of the screen



```
app.AddLayout( lay );  
  
setInterval( Move, 1000 );
```

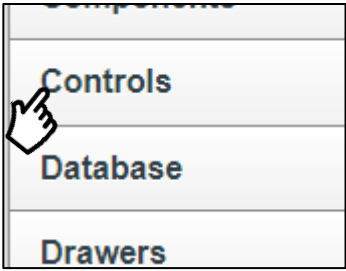
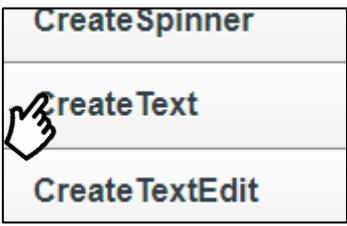
## Step 7 – Check your code:

**Your Code should now look like this!**



```
function OnStart()  
{  
    lay = app.CreateLayout( "Absolute", "FillXY" );  
    lay.SetBackground( "/Sys/Img/StarField.jpg" );  
  
    img = app.CreateImage( "/Sys/Img/Hello.png" );  
    img.SetOnTouch( img_OnTouch );  
    lay.AddChild( img );  
  
    app.AddLayout( lay );  
  
    setInterval( Move, 1000 );  
}  
  
function img_OnTouch( ev )  
{  
    if( ev.action=="Down" )  
        app.TextToSpeech( "Ouch!", 1.0, 1.0 );  
}  
  
function Move()  
{  
    var x = Math.random();  
    var y = Math.random();  
  
    img.SetPosition( x, y );  
}
```

## Step 8 – Add the Score

<p>In the Docs go back to the <b>main reference list</b> and select <b>Controls</b></p> 	<p>Click <b>CreateText</b></p> 	<p>Copy the <b>bold lines</b> in the <b>first example</b></p> <pre>txt = app.CreateText( "Hello" ); txt.SetTextSize( 22 ); lay.AddChild( txt );  app.AddLayout( lay ); }</pre> 
---	--	--

Paste this into your App above the **'CreateImage'** line.  
Now change the **"Hello"** message to show the number **"0"** and **run your App**. You should see a score of zero at the top left.



```
lay.SetBackground( "/Sys/Img/StarField.jpg" );  
  
txt = app.CreateText( "Hello" );  
txt.SetTextSize( 22 );  
lay.AddChild( txt );  
  
img = app.CreateImage( "/Sys/Img/Hello.png" );
```

## Step 9 – Update the score

Add a new line to **the very top** of your code like this:-



```
var count = 0;  
  
function OnStart()
```

Change the **img\_OnTouch** function to look like this:-



```
function img_OnTouch( ev )  
{  
  if( ev.action=="Down" )  
  {  
    app.TextToSpeech( "Ouch!", 1.0, 1.0 );  
    count++;  
    txt.SetText( count );  
  }  
}
```

## Step 10 – Speed it up

Change the line that says **'setInterval'** to use a value of **500 instead of 1000**. Your Code should now look like this!



```
var count = 0;

function onStart()
{
    lay = app.CreateLayout( "Absolute", "FillXY" );
    lay.SetBackground( "/Sys/Img/StarField.jpg" );

    txt = app.CreateText( "0" );
    txt.SetTextSize( 22 );
    lay.AddChild( txt );

    img = app.CreateImage( "/Sys/Img/Hello.png" );
    img.SetOnTouch( img_OnTouch );
    lay.AddChild( img );

    app.AddLayout( lay );

    setInterval( Move, 500 );
}

function img_OnTouch( ev )
{
    if( ev.action=="Down" )
    {
        app.TextToSpeech( "Ouch!", 1.0, 1.0 );
        count++;
        txt.SetText( count );
    }
}

function Move()
{
    var x = Math.random();
    var y = Math.random();

    img.SetPosition( x, y );
}
```

## Step 11 – Play the Game and Improve it.



Congrats, that's our App all finished.

Now play the Game!

In this tutorial, we covered:

1. Adding Images to our Apps
2. Changing the Image once it's in
3. Converting Text to Speech using DroidScript
4. Moving things around on the screen
5. Changing our App's Intervals, to speed up the game
6. Keeping track of and displaying a Score using Text

Bonus Objectives:

See if you can improve the app, tweek it and add stuff to make it better in some way.

Here are some things you could try:

- Making the game speed up as the time or score increases
- Stopping the Droid from appearing off the screen
- A lives system, you get 3 or 5 misses then Game Over