

# EB GUIDE tutorial

Making an ellipse move across the screen

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# 1. Tutorial: Making an ellipse move across the screen

**NOTE****Default window layout**

All instructions and screenshots use the default window layout. If you want to follow the instructions, we recommend to set the EB GUIDE Studio window to default layout by selecting **Layout > Reset to default layout**.

The following instructions guide you through the process of animating an ellipse so that it continually moves across the screen when the simulation starts.

Approximate duration: Five minutes.

**Adding widgets**

In the following steps, you add three widgets to the view and organize the hierarchy of the widgets.

Prerequisite:

- The content area displays the **Main** state machine.
- The **Main** state machine contains an initial state and a view state.
- The initial state has a transition to the view state

Step 1

In the content area, double-click the view state.

The view is displayed in the content area.

Step 2

Drag an ellipse from the **Toolbox** into the view.

Step 3

Drag an animation from the **Toolbox** into the ellipse.

Step 4

In the **Navigation** component, click the animation, and press the **F2** key. Rename the animation to `MyAnimation`.

Now, if you start the simulation, an ellipse is displayed in a view. The ellipse does not move yet.



## Adding a user-defined property of type `Conditional script`

As a next step, you add a user-defined property to the ellipse. With the conditional script property, rendering the ellipse during simulation starts the animation.

Prerequisite:

- You completed the previous instruction.

### Step 1

Select the ellipse.

### Step 2

In the **Properties** component, go to the **User-defined properties** category, and click **+**.

A menu expands.

### Step 3

In the menu, click `Conditional script`.

A user-defined property of type `Conditional script` is added to the ellipse.

### Step 4

Rename the property to `startAnimation`.

### Step 5

Next to the `startAnimation` property, select the **Value** column and click `{ }`.

An EB GUIDE Script editor opens.

### Step 6

Enter the following EB GUIDE Script:

```
function(v:arg0::bool)
{
  f:animation_play(v:this->^->MyAnimation)
}
```



## Making the animation visible

The following instructions guide you through the process of making the animation visible.

Prerequisite:

- You completed the previous instruction.

- The content area displays the `View 1` view.

#### Step 1

Go to the **Animation editor**. Next to **Animation properties**, click **+** and select `View 1`.


A menu expands.

#### Step 2

Under `Ellipse 1` select the `x` property and then the **Linear interpolation curve**.

#### Step 3

Click **Accept**.

The  button is displayed next to the `target` property.

#### Step 4

Link the `end` property to the view's `width` property.

With these settings, when the animation starts, the `x` property of the ellipse changes from zero to the width of the view. Thus the ellipse moves from the left boundary to the right boundary of the view.

#### Step 5

To make the animation run in infinite repetitions, enter `0` in the `repeat` property.

#### Step 6

Save the project.

#### Step 7

To start the simulation, click **▷** in the command area.

Result:

The ellipse continually moves from the left side of the view to the right side of the view.