Instructions: Signal Generator

Resource name	Signal Generator
Description	This resource allows you to create a puzzle whose solution requires participants to use a device to generate an electrical signal with a specified waveform, frequency (F), amplitude (A), and phase (φ).
Usage requirements	None.
Settings	

Waveform button	This setting allows a button to be displayed in the signal generator to change the waveform among the following four types: sinusoidal, square, triangular, and sawtooth. If this button is not displayed, the device will always generate sinusoidal waves.
Action after solving	This setting allows you to select the action that will be carried out after the puzzle is solved. It can take the following values:

None	
Show message	If this action is selected, a message will be shown to participants when they generate the correct signal. The message can be customized using the "Message" setting.
Play sound	If this action is selected, a sound will be played when the participants generate the correct signal. The "Sound" setting allows you to specify the audio to be played via a URL. If no sound is specified using this option, a generic audio will be played.

Background	This setting allows you to change the default background. You can enter the URL of any image from your resource catalog.
Solution	You must link this resource to an escape room puzzle and specify a solution for that puzzle using the following format: $$Waveform; Frequency; Amplitude; Phase$$ The value of each variable ($Waveform$, $Frequency$, $Amplitude$, and $Phase$) must be the one that participants have to set for that variable in the signal generator in order to solve the puzzle.

The *Waveform* variable can take the following values:

Waveform	Value
Sinusoidal	*sine*
Square	*square*
Triangular	*triangle*
Sawtooth	*sawtooth*

If the signal generator does not include the button to change the waveform, the value of the *Waveform* variable will always be "sine."

For example, if you want participants to generate the waveform shown in the image included in these instructions (a sinusoidal wave with a frequency of 10, amplitude of 21, and phase of 0) in order to solve the puzzle, the following solution must be specified:

sine;10;21;0