

Play the Knave



PLAYER MANUAL

In Play the Knave, players use their bodies and voices to create a short animated production of a scene from Shakespeare. Players use the game's menu system to select one from among hundreds of Shakespeare scenes. They then design a virtual production of the scene, selecting avatars, a soundtrack, and a theater stage. The screen transforms to show the selected stage with the players' avatars on it, ready to perform. Lines from the Shakespeare script appear, karaoke-style, for players to read aloud; and a Kinect motion-sensing camera allows players to move their avatars around the virtual stage using their own bodies. The animated video that players create while they play can be recorded via screen-capture software to be watched or shared after the gameplay session has concluded.

But there are lots of other things you can do with Play the Knave besides performing scenes from Shakespeare (see section E below for details). This guide gives you an overview, step-by-step instructions, and tips for how to get the most of the game!

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A. HARDWARE

You will need the following hardware to play the game. If you don't have particular pieces of equipment, you can arrange to borrow them through our Loan Program.

- 1) A gaming PC computer that runs Windows 8 or 10. Most “gaming computers” will work, but the following are recommended specs for the PC you choose to run *Play the Knave*:
 - 64 bit (x64) processor
 - 8 GB Memory
 - Intel i7 3.0 GHz (or higher)
 - Built-in USB 3.0 host controller (Intel or Renesas chipset).
 - DX11 capable graphics adapter (see list of known good adapters below)
 - ATI Radeon HD 5400 series
 - ATI Radeon HD 6570
 - ATI Radeon HD 7800 (256-bit GDDR5 2GB/1000Mhz)
 - NVidia Quadro 600
 - NVidia GeForce GT 640
 - NVidia GeForce GTX 660
 - NVidia Quadro K1000M
- 2) A Kinect v2 motion sensor device (ASIN# B00YT168WA). Microsoft has stopped manufacturing these, but you can still find them through various distributors if you shop around on online. We are investigating options for additional motion sensor devices that would be compatible with our software.



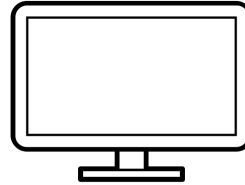
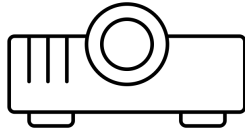
*** Make sure you buy the Kinect v2, not Kinect v1, which will not work***



- 3) An adapter to connect your Kinect to your PC.

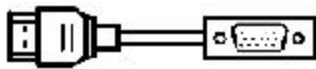


- 4) A TV screen (the bigger, the better) or an AV projector.



Your TV or projector will need an HDMI connection. If you have only a VGA input, you will need a VGA adapter.

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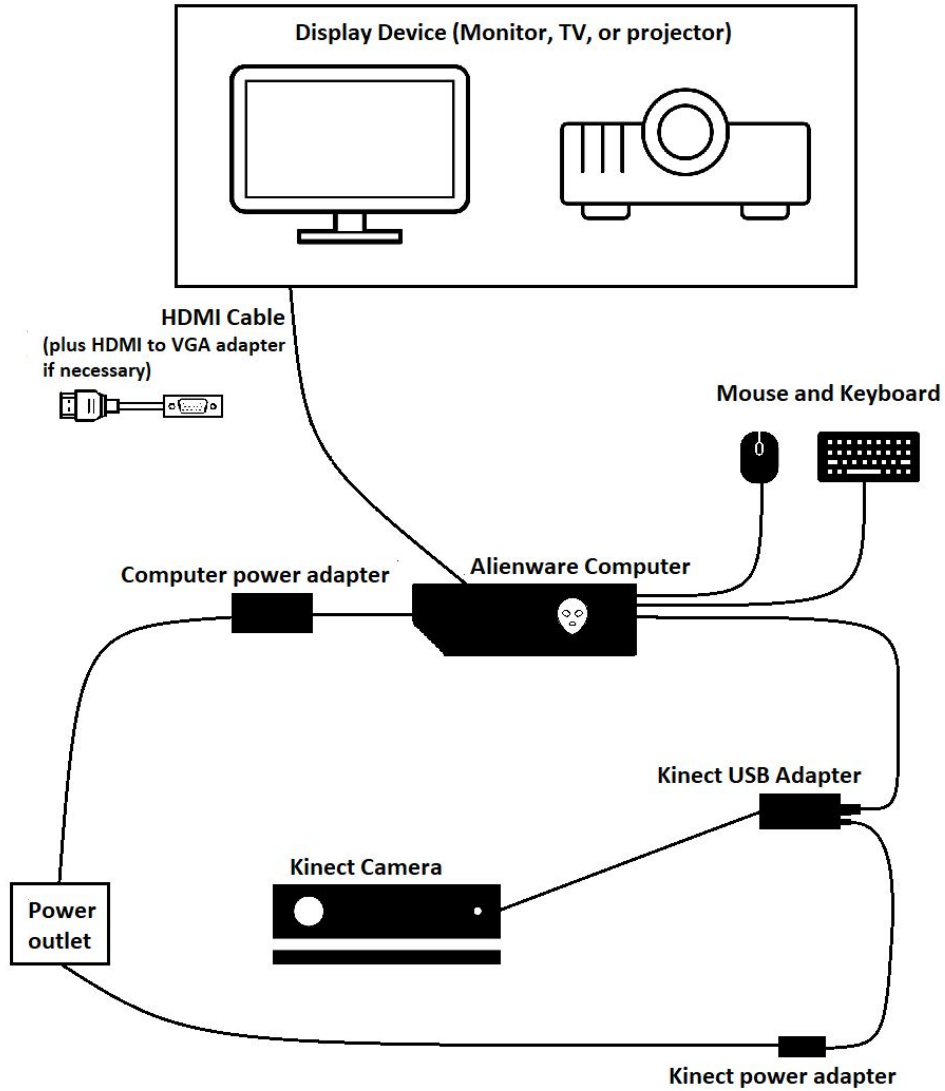


B. SETUP AND INSTALLATION

Connect the hardware [see image 2: Play the Knave Setup Guide]. Make sure that all your input plugs are connected tightly to their sockets. **If you are borrowing a Knave kit from us, consult the kit instructions.**

Image 2:

Play The Knave Setup Guide



TIPS FOR A GOOD GAME:

1. Place the Kinect camera on a table or flat surface in the front of the playing space, positioning it so that its front edge is directly on top of table's front edge. [See image 4: Kinect Positioning.] The surface can be anywhere between 2 and 6 feet of the ground. Adjust the angle of the camera by tilting it up if the camera is lower or tilting it down if the camera is up high.
2. You will need a good amount of open space (minimum 6 feet) in front of the Kinect. The Kinect will search for people who are its optimal zone, shown in the diagram [see image 5: Setting up the Kinect play space]. So it is best to clear space on the sides of the playing area as well. The more space you have, the more your players can move around. The more players you have, the more space you will need.

Image 4:

Kinect Positioning

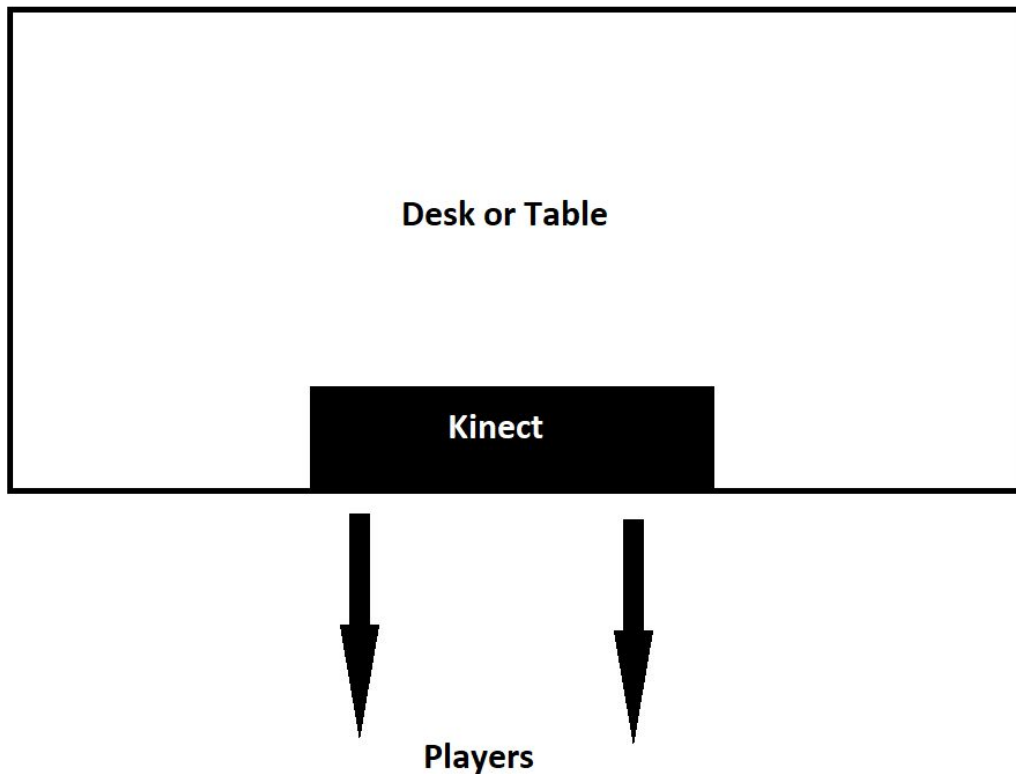
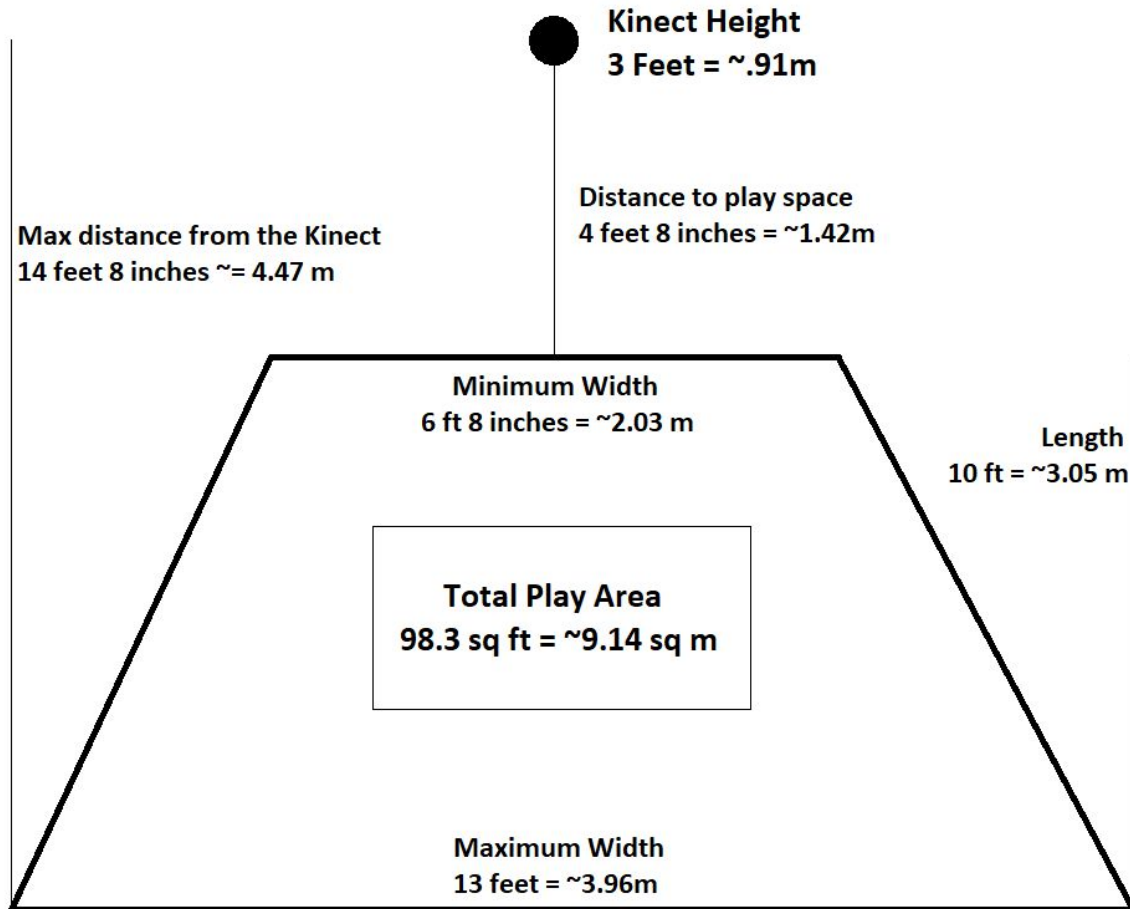


Image 5:

Setting up the Kinect play space



C. GETTING STARTED

1. Power on your computer. (The Kinect camera will turn on only when the game begins.)
2. To open the game's software, double-click the Play the Knave icon on the computer.
3. When the game is running, hit ESC to pull up the game menu if it does not appear automatically.
4. It may take a little extra time for the game scenes to load, so allow at least 5 minutes before consulting our troubleshooting tips.

D. NAVIGATING THE MENU

The boxes on each menu page will prompt you to make choices for what you want to do. Just click on the boxes to make your selection.

At the bottom of the screen, you will find other **navigation buttons**:



Find out more about the team that created Play the Knave or link to our website.



Return to the prior menu (i.e., if you change your mind about your selection)



Clear your selections and return to the first menu to start choosing again, stopping any currently running scene.



Shut down the game.



This button will appear when you have made all the possible selections in the menu and are ready to perform your scene. See section J for more information on scene performance.

E. OPTIONS FOR PLAY

The first menu offers you a range of options for Play the Knave gaming. Here is a brief description of the options; more details follow below.

- a) Warm up: In this warm-up activity, you get a feel for your avatar and some practice acting.
- b) Perform a Scene from Shakespeare: the game is preloaded with hundreds of Shakespeare scripts, allowing 1-4 players to perform a scene from one of the bard's plays.
- c) Perform Your Own Script: you can write your own script, Shakespearean or not. Upload it, and it will appear karaoke-style just like the scripts preloaded in the game.
- d) Theater Games: these mini-games involve improvisation and help you discover ways of using your avatar.
- e) Free Play: you can play around with your avatars on the screen for as long as you would like. No karaoke script instructs you about what to say or do.

Warm up

This short activity gives you a chance to play around with your avatar, get a feel for the play space, and some practice choosing movements that convey character emotions. You have the option to play this same warm-up activity directly before you perform a scene from Shakespeare or you can play it on its own by selecting “warm up” from the first menu.

Perform a Scene from Shakespeare

Choose one from among hundreds of Shakespeare scenes to perform karaoke-style. The karaoke scripts are all taken directly from Shakespeare's plays, though they have been edited slightly to make them more easily playable in the game.

1. Select your play and scene.
 - a. Click on a genre to select Comedy, Tragedy, or History
 - b. If you know what play you want to perform, click it, and a pop-up screen will show you the names of all the scenes available for that play.
 - i. In cases where you know the number of players you have, you'll want to pay attention to that information in the scene title. Alternatively, you can click the “Filter by Player” button so that the menu shows you only scenes with the number of players you have.
 - ii. Hovering over the scene name will pull up an additional pop-up window that tells you about the characters in the scene and explains key context so you know what is going on at this point in the play.

- c. If you're not sure which play or scene to choose or want some help narrowing down your options, you can click "Filter by theme." E.g., you can find scenes about love or fighting; or scenes involving singing or clowning.
- d. If you're not sure what scene to pick or just like the fun of a surprise, click on "choose scene for me" to have our system randomly pick a scene for you.

TIP FOR A GOOD GAME:

Before you click on your chosen scene, use your mouse or trackpad to hover over the scene name so that you can re-read its plot summary and character descriptions. If there are more than two players, this would be a good time to decide who will play which character.

2. You will then be prompted to make a few more decisions about your script:

- "Warm up": Decide whether you want to do the warm-up activity before you perform your scene. See the description for "warm up" above for more information about the warm-up. If you select "include a warm up," you will move through the warm-up script and then right into your scene.
- Script version: Choose between two versions of the scene you selected. Both versions use Shakespeare's language from his original play, edited slightly to make for a more enjoyable game experience. The "full" version is more complete, while the "abridged" version removes some of Shakespeare's more complex language to create a more streamlined script.
- Script speed: When you perform your scene, the lines from Shakespeare's script appear on screen. Decide now how fast you want to read them. For two or more players, agree on the speed that works for all.
 - Slow: Designed especially for those who need or prefer to read at a slower pace, this script speed gives you lots of time to spend on each line.
 - Medium: This level is designed for more experienced readers or those who have mastered the slow level of this script. Unlike the fast level, the medium speed gives the player time not only to deliver the lines, but to act them out physically, moving around the stage and engaging more with playing partners.
 - Fast: for especially strong readers and those who are very comfortable with Shakespeare's language, the fast speed allows for conversational

delivery of the bard's lines. Note that less experienced actors will have less time to perform physically with the fast speed.

Perform your own script

If you want to perform a script not included in our game, you can write it yourself using our ScriptMaker software. Use your browser to visit:

<https://toothman.cs.ucdavis.edu/scriptmaker-public/>

Select the HELP tab for instructions.

Once your scene has been created and saved to the game computer, return to the game and choose the option for “perform your own script.” A dialogue window will open automatically. Navigate through your computer's drive to find the file and open it. The script will automatically load into Play the Knave. Proceed with steps F-J below.

Theater Games

These mini-games are adapted from well-known improvisation exercises that actors use in training and rehearsal. Playing them gives you practice performing with an avatar. The games are excellent warm-up activities before playing a scene with dialogue, or they can be played on their own for fun.

After selecting this option, you will be taken to a list of minigames. Hover over the name of a game to find out more about what you'll be doing when you play it. Once you select the game you want to play, instructions on screen will tell you what to do. Because there is no voiceover for these instructions, you might find it helpful to nominate someone in the room to read them aloud.

Free play

If you don't want a karaoke script to appear on screen to direct your avatars, you can select “Free Play” from the first menu and then proceed with steps F-J below.

When you are finished with free play, hit ESC on the keyboard to end the scene and return to the main menu.

F. AVATAR SELECTION

Once you have selected your script, you will be prompted to choose an avatar for each of the scene's characters. To select from our 30 different avatars, you can

1. Browse them all by clicking the “next” arrow on the screen

2. Click “Filter by costume” to see avatars from a particular setting. We have three options for historical eras (Ancient, Elizabethan, and Modern) and a group of fantasy/sci-fi avatars.
3. If you’re not sure what avatar to pick or just like the fun of a surprise, click on “Choose for me” to have our system randomly pick an avatar for your character.

TIP FOR A GOOD GAME:

Think about how your scene or your character might be played differently depending on the setting and avatar choice. What would it mean for Hamlet to be a Roman soldier vs. a man in a business suit? Do you want to have Lady Macbeth dressed like a woman or a man (remember that Shakespeare’s female roles were played by male youths). What are you saying about the famous star-crossed lovers of *Romeo and Juliet* if you cast Romeo in an Elizabethan dress while Juliet is a robot?

G. SOUND DESIGN

In selecting your scene’s soundtrack, think about what mood you want to set. You can hear a sample of each soundtrack by hovering over the selections in each category:

1. Music: this is background music for your whole scene. Like in a movie, this is a soundtrack that sets the mood for the audience but usually the characters in the scene don’t hear it.
2. Atmosphere: these soundtracks help establish what the atmosphere or location for the scene is. For instance, you can decide whether you are at a ball game, in a battlefield, or in a forest at night.

As always, there’s a wild card option: if you’re not sure what sound to pick or just like the fun of a surprise, click on “Choose for me” to have our system randomly pick background sound for your scene.

If you would rather not have any background sound, you can select “none.”

H. THEATER VENUE

Select the venue for your show. Four theaters are available:

1. Historical theaters: The Rose Theater in London (circa 1600) and the Queens’ College Cambridge Temporary Stage (circa 1547)

2. Contemporary theaters: the Stratford Festival Stage, Canada's premiere Shakespeare theater in Ontario, or "The Container Globe," a replica of Shakespeare's famous globe that is currently being built out of shipping containers.

Again, you can click on "Choose for me" to have our system randomly pick a theater stage for your scene.

I. START

Your final menu screen invites you to read over a brief legal disclaimer. Once you click START at the bottom of the screen, your scene will begin, so make sure that immediately after clicking START, players and spectators move out of the Kinect's tracking area. About 10 feet away from the Kinect camera should be sufficient.

TIP FOR A GOOD GAME:

If you wait too long to move out of the Kinect's tracking area, the Kinect may try to match you to the wrong avatar in a multi-player scene. See Troubleshooting if you get assigned the wrong avatar and want to fix this.

J. PERFORMING

Instructions for play and the lines for any character dialogue in the scene will appear on screen.

There are two parts to every great acting performance: voice and movement.

1. **Voice:** Character's lines will be color coded lines so you know when it is your turn to speak. A karaoke style timer will help you pace your delivery of the lines. The lines will disappear more quickly if you chose the FAST speed and remain longer if you chose the SLOW speed. You can read ahead to the upcoming line by looking at the small white type below the colored text.

TIP FOR A GOOD GAME:

Once you have chosen your speed, you have no control over the pace the lines appear. If you read faster than the pace of the set speed, there may be an awkward silence at the end of your line while you or your fellow player waits for the next line to appear. You can avoid this awkwardness by reading at the pace you have selected, even if it feel slow, or by pausing in between phrases to perform a certain action. You can even ad lib, throwing in your own dialogue, just as some actors did on Shakespeare's stage. Remember, the system doesn't give you a score, so you have creative freedom!

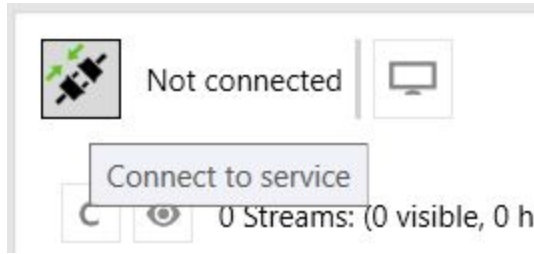
2. **Movement:** The avatars won't move unless you do. So when you deliver your lines or listen to your playing partner(s) deliver lines, try to come up with some movements to show what your character is thinking or feeling. A few things to keep in mind:
- a. Two, three, and especially four player scenes require a good amount of room. If players cross in front of each other, the Kinect may not be able to track them: an avatar may disappear or get switched with another player's avatar.
 - b. If your avatar disappears and you are still inside the playing space, a skeleton figure will appear in place of your costumed avatar, and the white line you used to get your costume will reappear. Maneuver your skeleton to stand on the white line, and your avatar will get its costume back. Or, if you like being a skeleton, avoid standing on the white line to play the rest of the scene as a skeleton!
 - c. Your avatar will be best able to mirror your bodily movements if you face the Kinect camera directly and do not cross your arms in front of your body. (If you are using the "alternate set-up," your back should face the Kinect camera directly.) If you turn sideways, your avatar will move in unpredictable and sometimes hilarious ways. It is up to you whether to use this "glitch" as a feature!
 - d. Your avatar may not follow you easily if you sit or lie down on the ground. If you want your avatar to do these things, consider sitting or lying on a chair or table--the furniture won't show up on screen, but your animation viewer can imagine it.
 - e. There are no physical props in Play the Knave, so if your avatar needs to use a prop in the scene, use your imagination and gestures to pantomime what the object is or pretend it is there. Remember, too, that you can be creative in interpreting the script. For instance, if you don't want to fight with an imaginary sword, you can use your fists or another pretend weapon.

TIPS FOR A GOOD GAME:

- The better you understand the game and what the system can and can't do, the more complex your staging can be. For instance, you can make your avatar disappear on purpose and play as a skeleton (especially fun if your character is supposed to die in the scene you have chosen!). For inspiration, see player videos on our website <http://playtheknave.org>.
- "Glitchy" avatars are a good part of the fun of this game. It's almost impossible to get a smooth avatar performance, so instead of getting frustrated, get creative! Think about how these glitches could be meaningful for your scene. For instance, if your character is being attacked by another character, you can turn sideways or cross your arms on purpose to make your avatar go wonky.

K. TROUBLESHOOTING

Problem	Solution
The game froze.	Hit ESC on your keyboard and when the menu appears, click the STOP button. Restart the game.
The game won't load/ STOP/close/quit.	Click and hold ALT-TAB. Hover your mouse over the box that appears until you see an "x" in the corner. Click that to quit the game manually. If this doesn't work, try pressing ALT-F4 on the keyboard to force-close the game. Press it once and wait a few moments.
I get an error message saying "Mekanimator.exe is not responding. If you close the program, you might lose information."	Close the program. And then restart the game by double-clicking on the game's application icon.
I tried the above options, and nothing will work.	If you can press ALT-TAB until the desktop appears, click on the windows menu and restart the computer. Otherwise, move on to the next solution.
The computer is not responding.	Turn off the computer by holding down its power button. (This is the alien head if you are using a Play the Knave kit's Alienware computer.) Once the computer has powered down, turn it on again and restart the game.
The display of the game looks odd or off-centered.	Hold down "shift" after double-clicking the game's icon on the desktop. This will bring up a launcher where you can change the game resolution to match the display.
The external display (TV screen or projection) does not show the computer's desktop.	Check that the HDMI cable connecting the computer to the display device is secure. In some cases, your computer will have an input <i>and</i> an output for HDMI. Make sure you have plugged the cable into the computer's <i>input</i> for HDMI.
The lines from the scene I chose are not showing up.	Press ESC on the keyboard. When you see the game menu, click the "RESET" button. Try choosing your options again. If the scene's lines still won't load, send us a bug report at playtheknave-help@ucdavis.edu and try a different scene.

<p>When I double-click on the game, I get an error message saying that the game is already running.</p>	<p>Look at the bottom left of the screen or hit ALT-TAB on the keyboard to see other windows that are open. If you see the game running in one of those windows, either manually close that window (click the x) or select that window to open it and use the version of the game that is running there. If this message still appears, restart the computer.</p>
<p>The Kinect camera isn't turning on when the game is running. The skeletons for avatars don't appear when I step into the play area.</p>	<p>Check your cable connections and make sure they are tight. Then hit ESC on your keyboard to exit and restart the game.</p> <p>If you're borrowing equipment from us, you can also check the Kinect's performance directly. Open the Start menu and search for "Kinect Studio v2.0". Click the "Monitor" tab and then click the button in the upper-left:</p>  <p>This will let you see from the Kinect's point of view. If nothing appears in the Monitor window on the right, try the following in order:</p> <ol style="list-style-type: none"> 1. Check the connections again and make sure the Kinect is plugged into a power source. 2. Unplug the Kinect's USB from the computer, restart the machine, and plug it back in.
<p>My avatar is acting glitchy.</p>	<p>Face the Kinect camera head on; don't turn your body to the side or cross your hands and feet in front of each other.</p>
<p>My avatar disappeared or turned into a skeleton.</p>	<p>Re-enter the play space and stand on the white line to get your costume again. Once you have your avatar back, try not to cross in front of the other player.</p>
<p>The lines are not appearing at a speed I like.</p>	<p>Click ESC on the keyboard. When you see the game menu, click the "RESET" button. Choose the scene</p>

	again, this time selecting a different speed level.
I got the wrong avatar when we started the game, and I don't want to play the scene out this way.	Have both players leave the play space. Then have players re-enter one by one in the correct order, making sure each player comes to the white line to receive the correct costume before the next person enters.
Something else is happening and I'm not sure how to fix it.	<p>Send an email to playtheknave-help@ucdavis.edu with the subject "Play the Knave bug". Describe the issue in the message body. If you can include a screenshot of the issue that helps describe the issue, please do.</p> <p>If you borrowed one of our Knave kits, please also include the computer name from the tag on top. E.g., PTK 4 or PTK 8.</p> <p>It's very helpful to include the game's output log. To find this, right-click on the game's icon and click "open file location". Open the folder called Mekanimator_Data and look for a text file named output_log. Right-click on this file and select "send it to the documents." Once you have it in documents, you can either drag it to a USB drive to email from your own computer. Or you can log in to your email client using Chrome on the computer and drag your file over to the email. Attaching this log in the email you send us will drastically improve our ability to help you!</p>

Acknowledgements:

Icons used in this manual are taken from the Noun Project, used by permission of their creators:

- Game console by Vangos Pterneas
- Projector by Vectplus
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- VGA by Iconic
- Mouse by flamingo
- Keyboard by Pawel Glen
- Alien by Joris Millot

