



BACKstage Challenge

LIGHTING: HANG & FOCUS



Your mission is to call new recruits to Avengers Campus, to help create the next generation of superheroes. Work together to shine a light on the ultimate superpower: teamwork. Not all heroes wear capes. Sometimes they wear all black and are found behind the scenes.

THE EVENT

This classic Tech Challenge entry has been reconfigured as a relay, involving all four members of your team. Each member will participate in a specific part of the sequence of properly hanging and focusing a Source Four Ellipsoidal, including using a gobo and gel.

The challenge setup includes a pipe stand for the instrument, and a surface to project the image on. Necessary tools and supplies will be on a table a few feet from the pipe stand. Opposite the table is a designated surface to display the gobo-produced image.

Person 1 starts the clock and securely hangs the instrument on the pipe stand. Person 2 powers on the instrument and focuses it at the designated wall location. Person 3 inserts and focuses the gobo image. Person 4 adds the correct gel color and fine tunes the focus before stopping the clock.

All adjustments will be made from behind the instrument, heeding a line on the floor (imagine this is the edge of a catwalk or scaffolding platform).

Wrenches and gloves will be provided. Teams may not use their own wrench but may use their own gloves.

For this exercise, instruments must be hung with the pipe clamp opening facing you. The tools you select to use must be tethered to your wrist and cannot be placed on the floor or in your mouth.

NOTE: For the Qualifying Round, you may determine your team's order (designating who does what), but this order may be randomized during Finals!

REQUIRED SEQUENCE

The instrument and all necessary tools will be preset on a table a few feet from the mounting pipe. Items may be brought from the table to the pipe stand, but may not be placed on the floor, tethered around the neck, or put in your mouth. Team members wait behind the table.

Person 1: Start the clock, bring the instrument to the pipe stand, hang the instrument with the clamp opening toward you (working behind the instrument). Close the clamp, attach the safety cable, then tighten the clamp using the wrench. You may unwrap the power cable and open the shutters. No further adjustment should be necessary to the pipe clamp bolt.

Person 2: Unwrap the power cable, tilt the instrument into position, and open the shutters if not already open. Plug the instrument into the provided receptacle, managing the cable. Power on the instrument and focus the beam to a hard-edged circle on the designated projection area. No further adjustment should be necessary to the yoke bolt or yoke locking knob.

Person 3: Put the supplied gobo in its holder and insert it properly into the instrument. Sharpen the focus to project the image correctly onto the designated surface. (Note: If the instrument is upside down, you must correct this error and incur a penalty.) No further adjustment should be necessary to the instrument's focus.

Person 4: Roll the die to determine the gel color. Select the correct gel and put it in its frame. Insert the gel frame into the instrument slot carefully, closing the clip, being careful not to affect its focus. (Note: If the instrument is upside down or loses focus, you must correct these errors and incur any penalties.) Once the instrument and image are in focus, stop the clock.

PENALTIES ISSUED FOR:

- Dropping items, placing them on the ground, or in your mouth.
- Gloves not always worn.
- Items tethered around the neck.
- Gel frame not installed properly.
- Pipe clamp opening not facing installer.
- Instrument hung upside down.
- Safety cable not used properly.
- Instrument powered on with shutters closed.
- Any adjustment not sufficiently tightened.
- Failure to follow sequence.
- Incorrect gel selection.
- Leaving image backwards or upside down.





BACKstage Challenge

AUDIO: CABLE RELAY



Seventy years ago, when Disneyland® opened on July 17, 1955, the opening ceremonies were telecast live. This ABC special had a huge audience, estimated at 90 million viewers. The show was the largest live production ever attempted at the time, utilizing 24 cameras and a staff of hundreds. Recreate this historic moment by joining the audio crew to broadcast Walt Disney's famous opening dedication speech. Happy 70th Anniversary, Disneyland!

THE EVENT

In this challenge, your team will be responsible for striking and resetting a simple audio system, focusing on proper coiling of the cables.

The simple setup will be in place, ready to play Ronald Reagan's introduction of Walt Disney, signaling the start of the clock:

"And now, Walt Disney will step forward to read the dedication of Disneyland."

In a relay, your team will take turns unplugging and re-plugging the source cable and speaker cable from the setup, making sure to change the level at the mixer before disconnecting any components. Cables must be coiled into neat, untangled, circular coils that fit within specified places on a table.

Once the system is reset, the final team member stops the clock by playing Walt Disney's famous dedication:

"To all who come to this happy place, welcome. Disneyland is your land."

FUN FACT: Although he was known primarily as an actor in 1955, Ronald Reagan would later go on to become the Governor of California, and the 40th President of the United States. He was one of several celebrity hosts during the opening day telecast.

FUN FACT: While the setup will be similar, the Final Round of this event may change the sequence, requiring your team to identify, select, and connect the proper cables to use.

REQUIRED SEQUENCE

The basic audio setup in place will include a source (triggered by an on-screen button), connected to a mixer amp, which is connected to a speaker.

The correct level of the channel at the mixer/amp, along with the correct input and output, will be clearly indicated. The team will wait behind a line adjacent to a table behind the speaker.

Player 1 will run to the source and trigger the introduction. They must wait until they hear the word "Disneyland" to turn down the level on the channel and disconnect and coil the source cable (connecting the source to the mixer/amp), placing it on the table in its designated place. The event referee must indicate that the cable fits properly in its marked location.

Player 2 will disconnect and coil the speaker cable (connecting the mixer/amp to the speaker), placing it in its designated place on the table. The event referee must indicate that the cable fits properly in its marked location.

Player 3 will take the source cable and reconnect the source and mixer/amp, dressing the cable properly.

Player 4 will take the speaker cable and reconnect the mixer/amp and speaker, dressing the cable properly. This player will then run to the source screen and trigger the dedication audio file, which stops the clock.

When placed on the table, the cables must be tied (with attached tie cord) in untangled circular coils that fit within their designated spaces. Dressed cables in use do not need to be taped down but do need to be free of loops and tangles.

PENALTIES ISSUED FOR:

- Cutting off the recorded introduction.
- Unplugging or re-plugging any connection while the channel is hot.
- Coil is tangled or not circular (figure eights are not allowed).
- Coils are not tied off with a bow.
- Coil does not fit in the taped-out area on the table.
- Cables are tangled or knotted when reconnected.
- Going out of sequence.
- Forgetting to turn up the level so we are able hear the entire dedication.





It's Pirate Night on board one of our Disney Cruise Line® Ships! Swab the deck, hoist the anchor, and trim the main sails! Your crew must secure the scenic for unpredictable seas ahead, raise the mizzen mast to fly your pirate flag and tow the cargo into a designated port!

THE EVENT

This is a relay, as your team uses three ropes and several specified knots to latch scenic cargo to a road case, raise the mast and pull it carefully into a designated outlined storage spot.

The first rope is tied to the side of the road case using a clove hitch, with a locking half hitch, but the rope is not long enough to secure the load!

The second rope is tied to the first rope using a sheet bend, making the combined ropes long enough! These two combined ropes are then used to tie down the "plank" on top of the road case and are long enough to haul up the mast using a trucker's hitch with an alpine butterfly knot.

Finally, the third rope is attached to a handle on the side of the road case using a bowline, and that rope is used to pull the road case into its designated "docking" position before stopping the clock.

Your knots will be inspected to make sure they are correctly tied, leaving at least a 6" tail at each end.

NOTE: In the Final Round, your team may be asked to draw numbers to determine your team order, and which knot each team member will need to tie!

Knot tying features many variations. Refer to animatedknots.com to know what our judges will be looking for. As always, in real life you should make your rope and knot choices based on actual circumstances. This challenge is simply designed to test your ability to tie these very useful knots in a fun and piratical way!

REQUIRED SEQUENCE

The team waits behind a table with all three ropes on it. The road case is across the room with the unsecured "pirate cargo". This cargo includes a plank with a mast socket and a mast with flag and eyelet. A taped-out "port" location for the road case is marked on the floor, closer to the table.

PLAYER 1 takes ROPE 1 and ties an end to one handle of the road case, using a CLOVE HITCH with a HALF HITCH LOCKING KNOT, then passes the free end of rope up through a hole in the plank, before running back and tagging Player 2. (Refer to "Clove Hitch (Rope End)" and "Half Hitch" at animatedknots.com)

PLAYER 2 takes ROPE 2 and ties it to the free end of ROPE 1, using a SHEET BEND, then passes it down through the hole at the other end of the plank, wrapping around the case handle and passing it back up through the same hole. After placing the mast in its socket, laying down, Player 2 tags Player 3. (Refer to "Sheet Bend" at animatedknots.com)

PLAYER 3 passes the free end of ROPE 2 through the mast eyelet, then uses a TRUCKER'S HITCH with ALPINE BUTTERFLY KNOT as the return loop, leaving the free end to pass through and around the hole in the plank to haul the mast up and tie down the cargo. Player 3 tags Player 4. (Refer to "Trucker's Hitch" and "Alpine Butterfly Loop" at animatedknots.com)

PLAYER 4 takes ROPE 3 and ties it to the marked handle on the side of the road case, using a BOWLINE, and uses it to tow the road case into the marked location on the floor before running back to the table to stop the clock. (Refer to "Bowline" at animatedknots.com).

PENALTIES ISSUED FOR:

- Going out of sequence.
- Putting any part of the rope in your mouth.
- Each incorrectly tied knot or knot that comes untied.
- Any tail shorter than 6".
- Using your hands to raise the mast rather than rope.
- Stopping time with the road case outside the taped out "secure" location, or without the pirate flag flying.
- No penalties will occur for emphasizing your "R"s when cheering on your teammates. "You ARRRR doing great, Matey!"





BACKstage Challenge

STAGE: PROP SHIFT



The table is always set for a spirited celebration in Disney's famous Haunted Mansion attractions. From the classic versions found at Disneyland® and Walt Disney World®, to the interpretations found in Tokyo Disney Resort®, Hong Kong Disneyland, Disneyland Paris, and now on Disney Cruise Line, our happy haunts have very specific guidelines for how their places are set.

THE EVENT

This challenge must involve your entire team and must be accomplished in silence.

The On-Stage table will be empty at the start, while all props for Scene B will be located on an organized prop table several feet away.

A plot showing the required table setting will be located at the prop table (and cannot be moved from the prop table).

Some props are used in Scene A only. These will need to be struck and returned to their designated locations on the prop table. Some props are used in Scene B only. These will need to be set according to the diagram at the prop table. Some props are used in both scenes. These may stay at the On-Stage table but may require some altering or repositioning.

You'll want to note specifics, such as the position of the chairs at the table, height of the candles, and fluid level in glasses.

When the change is complete, your entire team must be behind the prop table before stopping the clock. The referee will then check your work and add any penalties for items out of place.

We'll then ask your team to assist in resetting for the next group waiting to compete. This may factor into your participation score!

NOTE: We may create a problem your group will need to solve on the fly during the Finals!

REQUIRED SEQUENCE

Two tables (On-Stage table and prop table) are set up approximately 10 feet from each other. The On-Stage table is empty, and a diagram for the required table setting is on the prop table.

The prop table has the following on it:

- Props that must be added to the on-stage table to set the required scene.
- A folded tablecloth.
- Props that are not used in the required scene (you might imagine they are props from other scenes ... or you might call them red herrings).

Attend to details, such as the orientation of the tablecloth, and the positioning of the chairs around the table. Be sure to turn the candles on as you set them.

Your team must wait on the opposite side of the prop table until time starts. You'll be given a 10-second warning before time starts for any last-minute planning.

Once time starts there can be no talking. Any audible signals/sounds may result in a penalty. No items may be placed in pockets, on the floor, or in your mouth!

Your team will stop the clock when you think the change is complete. The scene must be fully set at the on-stage table, and all four team members must be on the opposite side of the prop table (from the on-stage table) before you stop the clock.

PENALTIES ISSUED FOR:

- Any incorrectly placed item on the on-stage table, including the tablecloth and chair positions (be sure to have the candles on!)
- Any drops, spills, or damage.
- Any prop or item placed in pockets, on the floor, or in your mouth.
- Any speaking or audible signals while the clock is running.
- Stopping the clock before the team is all behind the table.





BACKstage Challenge

COSTUMING: QUICK CHANGE



Disney's famous Haunted Mansion attractions feature 999 happy haunts, but there's always room for one more! In this challenge, one of your team members will undergo a disquieting metamorphosis, changing in a heartbeat from a member of the crew to our impeccably dressed Ghost Host.

THE EVENT

Your team must work together to execute a quick change with one of your team members playing the role of Performer. You'll be able to visually examine both Costume A and Costume B ahead of time to strategize.

The Performer will be pre-dressed in a standard Tech Crew uniform. All necessary elements of their "Ghost Host" costume will be preset in a Staging Area, on a rack or on a table. The Performer will wait in an On-Stage Area while remaining team members get 20 seconds to preset items from the Staging Area in a designated Changing Area.

Ready or not, the Performer will be sent from the On-Stage Area to the Changing Area and your official time will begin.

The Performer can help during the change but any communication should be kept to a low volume level.

When the change is complete, the Performer returns to the On-Stage Area and the other three members must return to the Staging Area leaving nothing behind in the Changing Area. Time stops once everyone is where they're supposed to be, and all costume elements are gathered in a controlled manner off the floor.

We'll ask your team to assist in resetting for the next team waiting to compete. This may factor into your participation score!

NOTE: The designated Performer must wear modest under dressings including a clean t-shirt, athletic shorts, and ankle-high socks. A limited stock of appropriate under dressings are available, but it's preferred that you bring your own.

REQUIRED SEQUENCE

The following areas will be taped out on the floor:

- On Stage Area
- Staging Area
- Changing Area

The Staging Area will have a rack and a table adjacent to the Changing Area with a ground cloth.

Teams may visually inspect the costumes ahead of time. Once the designated Performer is dressed in their Tech Crew uniform, they will wait in the On-Stage Area while the other three team members wait in the Staging Area.

The Referee will signal the start of a 20-second Prep Period, during which the three team members may move items (not the table nor the rack) to the Changing Area, and strategically place them for the quick change. Items may be placed intentionally on the floor if they are on the ground cloth in the Changing Area.

At the end of the Prep Period, the Referee will start the clock and send the Performer from the On-Stage Area to the Changing Area.

During the change, keep talking and noise to a minimum; handle all costume pieces and the Performer with care.

After the Performer has returned to the On-Stage Area, the three remaining team members return to the Staging area with all costume pieces gathered in a controlled manner and stop the clock.

PENALTIES ISSUED FOR:

- Any incorrectly worn or attached item.
- Any missing item.
- Excessive talking/noise/volume (yellow flag warning for first incident, penalty for each additional).
- Unnecessary roughness.
- Any item on the floor not intentionally placed on the ground cloth.
- Placing things in your mouth.
- Any item left behind in the Changing Area.





BACKstage Challenge

SCENIC: SET TAPE DOWN



A spellbinding new show is scheduled to premiere at Walt Disney World® Resort this summer, when *Disney Villains: Unfairly Ever After* comes to Disney's Hollywood Studios. It's time to give this collection of iconic Disney villains their due. Your task is to tape out scenic elements for a new scene being proposed for the show. Be accurate! Each of these characters insist on claiming their rightful place in the spotlight.

THE EVENT

Your team is tasked with taping out a portion of the set for a rehearsal of *Disney Villains: Unfairly Ever After*.

You will be provided the following:

- A set floorplan with an indicated scale
- A scale ruler
- Two rolls of tape
- Two tape measures

Once time starts, work together to tape out selected elements (indicated on the floorplan) onto the floor. Use the pre-taped center and plaster lines as a reference.

Use the tape efficiently!

Do not crumple excess or wasted tape as you work.

Once you are done, unused tape will be measured and you will be penalized for each inch.

Once your floorplan is checked for accuracy, you will be asked to reset the space for the next group. This may factor into your participation score!

LEAVE THE CENTER AND PLASTER LINES IN PLACE.

NOTE: Not all floorplans are created equal! During the final round, a more complicated portion of the set to be taped out may be assigned.

REQUIRED SEQUENCE

You will be shown the stage space, indicated by the plaster line and center line, pre-taped on the floor.

Your team will receive a groundplan, scale ruler, two rolls of tape and two tape measures. If you reach the end of one roll of tape, a new roll can be immediately supplied to you. Communicate with the referee if you see yourself getting low on tape!

The tape, tape measures, scale ruler and supplied floorplan must remain on the table until the referee announces start.

Tape out all indicated elements as specified on the supplied floorplan, according to the indicated scale.

When your team feels they have completed the assignment, return the tape rolls, tape measures, and floorplan to the table and press the button on the table to stop the clock.

Five minutes is the maximum time allowed for this event. At five minutes, the clock will be stopped and penalties will be assessed for any missing elements.

Return any unused tape that was removed from the roll but not used in your floorplan (tape removed from the roll cannot be put back).

The referee will check your work for accuracy and add any applicable penalties to your time.

PENALTIES ISSUED FOR:

- Any indicated elements from the floorplan that are missing.
- Any indicated elements from the floorplan that are out of place.
- Any indicated elements from the floorplan that are not to scale.
- Any excess/unnecessary tape on the floor (penalized per inch).
- Any unused tape removed from the roll but not used in the floorplan.
- Any unused and/or crumpled tape.

