

FC HSTF
Tech Olympics
2025 Competitions

Friday, March 28

1. Electrical Wiring

Teams will wire a 120v Edison and SPG adapter using wire strippers, 5 in 1 screwdriver, side cutter, 12/3 SOJ cable. Teams will be asked to make one an adapter with Edison, SPG or Twist Lock connectors.

- Timed – 10 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

2. Tool and Hardware ID - Teams of 2 will identify 10 tools and 10 pieces of hardware used in theatrical set construction. The Backstage Handbook is a great resource for hardware and tool information.

- Timed – 2 minutes
- Shortest time wins

3. Analog Sound System Set Up (new) - Teams of up to 5, will be issued a random (one of three) audio stage plot for sound reinforcement. Teams will be responsible for pulling gear, patching and demonstrating audio competency using a “Allen & Heath Mix Wizard WZ³ 14:4:2 analog console, amps, speakers, microphones, and cables. The end goal is audio reinforcement with a mic check.

- Timed – 10 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake (IE: feedback or incorrect gear used)

4. DMX Address and Ion Cuing (new) - Teams of 2-5 will hang, circuit, address, and program a moving light fixture using an ETC Ion console. Safety, speed, and accuracy will be judged. Team members will begin by being issued the following prompt - Step 1: Hang light, Step 2: Run power and DMX to instrument, Step 3: Power on the console, Step 4: Patch the

fixture profile (console), Step 5: Patch an address to the fixture (console), Step 6: Address the fixture, Step 7: Test fixture control, Step 8: Program show

Record the following 3 cues:

Cue 1: Light up (position doesn't matter, bonus points for presetting the instrument)

Cue 2: Light movement (pan, tilt, focus, color change, etc)

Cue 3: Blackout & Home

- Timed – 5 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

5. **Costume Quick Change** - Teams will compete in a costume quick change using a provided picture.

- Timed – 5 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

6. **Light Hang and Focus** - Teams will be tasked with hanging, circuiting, and focusing multiple instruments. Team members hang two lights on a light tree, right side up, focus the lights on two targets taped out on the wall with sharp shutter cuts to the edges of each shape. Fixtures must be locked down and tight with the safety cable wrapped around the pipe. The proper gel frame must also be in each fixture. Event is timed and checked for safety and accuracy of lighting instruments.

- Time allowed - 3 minutes.
- 10 seconds of time will be added for each mistake.

7. **Team Knot Tying** – Relay teams of 5 will tie 5 of the following knots chosen in random : bowline, square, sheetbend, sheepshank, clovehitch, figure 8 follow through, lineman's loop, carrack bend, alpine butterfly and cow hitch.

- Timed – 1.5 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

Saturday, March 29

1. Electrical Wiring

Teams will wire a 120v Edison and SPG adapter using wire strippers, 5 in 1 screwdriver, side cutter, 12/3 SOJ cable. Teams will be asked to make one an adapter with Edison, SPG or Twist Lock connectors.

- Timed – 10 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

2. Tool and Hardware ID – Teams of 2 will identify 10 tools and 10 pieces of hardware used in theatrical set construction. The Backstage Handbook is a great resource for hardware and tool information.

- Timed – 2 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

8. Analog Sound System Set Up (new) - Teams of up to 5, will be issued a random (one of three) audio stage plot for sound reinforcement. Teams will be responsible for pulling gear, patching and demonstrating audio competency using a “Allen & Heath Mix Wizard WZ³ 14:4:2 analog console, amps, speakers, microphones, and cables. The end goal is audio reinforcement with a mic check.

- Timed – 10 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake (IE: feedback or incorrect gear used)

3. DMX Address and Ion Cuing (new) - Teams of 2-5 will hang, circuit, address, and program a moving light fixture using an ETC Ion console. Safety, speed, and accuracy will be judged. Team members will begin by being issued the following prompt - Step 1: Hang light, Step 2: Run power and DMX to instrument, Step 3: Power on the console, Step 4: Patch the fixture profile (console), Step 5: Patch an address to the fixture (console), Step 6: Address the fixture, Step 7: Test fixture control, Step 8: Program show

Record the following 3 cues:

Cue 1: Light up (position doesn't matter, bonus points for presetting the instrument)

Cue 2: Light movement (pan, tilt, focus, color change, etc)

Cue 3: Blackout & Home

- Timed – 5 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

4. **Prop Quick Change** - Teams will be tasked with changing over a “set” with props using a provided picture. A total of 30 items will be placed.

- Timed – 8 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

5. **Tool Relay** - Teams of 5 will drill, bolt, and screw into lumber using portable power tools. Safety, speed, and accuracy will be judged. All team members participate in using carpentry tools in order. Team members begin by sitting in one of five chairs, each of which is labeled for a different tool, in order. Each participant will be tasked with hammering a nail, screwing a screw, drilling a hole, and placing a bolt in the hole with hardware, and lastly driving a lag. Event is timed and checked for safety and accuracy. The maximum time is one minute for each leg of the relay. A new team member cannot begin until the previous member finishes their task, returns the tools, and returns to their seats. Safety goggles must be worn at all times. A single warning will be given if they are removed. A second infraction equals disqualification. (Falling off accidentally will not be counted) Mistakes include: the nail or screw not being flush to the wood, hardware being loose, or forgetting a washer.

- Timed – shortest time wins
- 10 seconds of time will be added for each mistake.

6. **Cable coiling & Road Case Packing (new)** - Teams of 5 will identify lighting and audio cables and stage raft expendables. Teams will have five minutes to coil, organize and pack a road case. Appropriate coil styles will need to be done for each type of cable (i.e. over under, daisy chain and coil).

- Timed – 5 minutes
- Shortest time wins
- 10 seconds of time will be added for each mistake

1st - 3rd place

Overall winner