2009 TECH OLYMPICS – IHSTF @ University of Illinois at Urbana-Champaign  
January 9, 2009

EVENT DESCRIPTION/SCORING

Please note: The following represents the basic description of each event. Additional requirements and/or alterations will be at the discretion of the vendor/person running the event. This is done in part to keep the event fresh and challenging, especially to those who have participated previously. Any deviation from this description will be applied to all participants and will be made clear prior to performing the task. Don’t worry, you will still learn and have fun!

### EVENT 1  
**WIRING A STAGE PIN PLUG**

With all parts laid out in front of the participant, the participant will pick up a wire sample, strip the main cable covering back at least 1”, and then strip each of the 3 wires back 1/2”. Each of the 3 wires will then be screwed in the correct direction to the appropriate terminal in the plug – Ground, Hot, and Neutral. Once secured, the cover plate will be screwed in place. Task completed, the contestant signals with hands-up.

**Scoring**
Record the number of minutes/seconds to accomplish the above.

**Penalties** - Add the time shown to a score if:
- Wires in wrong direction around screw (+5 seconds)
- Wires on wrong terminal (+5 seconds)
- Cover plate not secured completely (+2 seconds)

### EVENT 2  
**NICOPRESS CRIMPING OF AIRCRAFT CABLE**

The participant must make a loop on the end of the aircraft cable around the thimble and put the sleeve on correctly using the swaging tool provided. Note: Fold the cable back approx. 4 3/4 in. and put the sleeve on about 1/2 in. from the end. Insert the thimble and then affix the sleeve as tightly against the thimble as possible. Crimp the sleeve with the swaging tool and check the first crimp for “go” or “no go.” The judge will check the sleeve for the number of crimps, location and the correct placement of thimble.

**Scoring**
Record the number of minutes/seconds to accomplish the above.

**Penalties** - Add the time shown to a score if:
- Incorrect placement of the thimble (+5 seconds)
- Incorrect swaging of the nicopress sleeve (+5 seconds)

### EVENT 3  
**KNOT TYING**

Using the 3 ft. length of sash cord and the hemp line, the participant must tie the two lines together with a sheet bend (a tailor’s knot). Following that, using one end of the 6-8 ft. sash cord, the contestant must tie a clove hitch on the pipe stand, as it should be tied to a fly-batten. When finished with tying one end of the 6-8 ft. sash cord to the pipe the participant must tie a one-handed bowline around his/her waist while holding the edge of the table with the other hand--at no time should the contestant touch the line with both hands.

**Scoring**
Record the number of minutes/seconds to accomplish the above.
Penalties - Add the time shown to a score if:
- Incorrect tying of sheet bend (+5 seconds)
- Incorrect tying of clove hitch (+5 seconds)
- Incorrect tying of bowline (+5 seconds)
- Use of second hand to tie bowline (+3 seconds)

**EVENT 4** LIGHT A GEOMETRIC SHAPE

Prior to the event, the two lighting units have been hung, turned on, and focused. With the framing shutters, two geometric shapes are created (a rectangle, rhomboid, or parallelogram--18 to 24 in. on each side) on the wall with tightly focused beams. The shapes were enclosed with masking tape and now become the target for the event.

When the contestant walks up to the starting line he should find a wrench, gel frame, work gloves, and the ellipsoidal spotlight sitting on its lens tube (out of focus) with the shutters shoved in. Picking up the unit, wrench, and gel frame the contestant runs to the boom stand, hangs the unit on the side-arm, engages the safety wire, tightens the clamp, plugs the unit in, focuses it, and frames the beam to the inside edges of the taped target, tightens all clamps/screws, and drops the gel frame into the unit's frame holder, and leaves for the finish line. The judge will tap the unit and it had better stay where the contestant set it or seconds will be added to the time. At the discretion of the judge, a pattern(gobo) may be added. Gobo must achieve correct degree of sharpness.

**Order of steps**
1. Locate Fixture
2. Hang Fixture
3. Hand tighten C-clamp
4. Install safety cable
5. Wrench tighten C-clamp
6. Wrench tighten yoke bolt
7. Open shutters
8. Plug in fixture
9. Focus fixture
10. Shutter cuts
11. Rotation
12. Sharp focus
13. Tighten pan screw and rotation knob
14. Drop in gel frame

**Scoring**
Record the number of minutes/seconds to accomplish the above.

Penalties - Add the time shown to a score if:
- Instrument upside down (+15 seconds)
- Out of Sequence (not tighten before safety) (+5 seconds)
- Forgot safety cable (+10 seconds)
- Not tight:
  - C-clamp (+10 seconds)
  - Vertical hold – yoke handles, wing nuts (+10 seconds)
  - Horizontal hold – pan screw (+5 seconds)
  - Focus knob (+5 seconds)
- Shutters not open before plugging in (+10 seconds)
- Shutter cuts (personal judgment) (+10-15 seconds)
- Sharp focus (personal judgment) (+10-15 seconds)
- Forgot gel frame (+3 seconds)
**EVENT 5  STRIKE AND SET UP PROPS**

Prior to the event, the "on stage" table should be covered with the "Act I" tablecloth (A) and set-up with the "Act I" set of plates, utensils and so forth. The "off-stage" table should be set-up with the "Act II" dishes, cloth, etc. on their marks.

The contestant must leave the starting line and clear the tablecloth, dishes, glasses, and etc. from the "on-stage" table and place them on the pre-set marks on the off-stage table. The "Act II" tablecloth (B) should be taken from the "off-stage" table and set in place on the "on-stage" table. The "Act II" plates, glasses and so forth should then be taken from the "off-stage" table and moved to the correct marks on the cloth covering the "on-stage table". Once set, the contestant runs to the finish line.

**Order of Steps**

1. Clear the tablecloth, dishes, glasses, and etc. from the "on-stage" table
2. Place them on the pre-set marks on the off-stage table.
3. The "Act II" tablecloth (B) should be taken from the "off-stage" table and set in place on the "on-stage" table.
4. The "Act II" plates, glasses and so forth should then be taken from the "off-stage" table and moved to the correct marks on the cloth covering the "on-stage table".
5. Once set, the contestant runs to the finish line.

Next contestant can change from Act II back to Act 1.

**Scoring**

Record the number of minutes/seconds to accomplish the above based on how accurately the plates, glasses, and so forth are placed on the marks of both tables.

**Penalties** - Add the time shown to a score if:

- Dropped prop (+5 seconds)
- Excessive Noise (+5 seconds)
- Missed mark on set table (+5 seconds)
- Missed mark on prop table (+3 seconds)
- Tablecloth not straight (+3 seconds)
- Tablecloth not set in proper orientation – US/DS (+3 seconds)
- Wrong prop placed on table (+5 seconds)

**EVENT 6  COSTUME CHANGE**

The contestant is, in this event, a member of the Wardrobe crew and must help an actress/actor to make a quick change. For equality in difficulty each sex uses the same type of costume--a suit. The wardrobe person must then leave the start line, run to the performer and help him/her out of the "Scene 1" suit and into the "Scene 2" suit (which is hanging on the rack next to the changing area). The "Scene 1" suit must then be hung correctly and neatly on a hanger that is then hung from the clothing rack before the wardrobe person (contestant) may depart for the finish line.

**Order of Steps**

1. Leave the start line
2. Give 15 seconds of prep time before letting performer in
   a. Actor will start change on their own if contestants aren’t ready
3. Actor will be fully dressed in scene 1 outfit
4. Assist the performer out of scene 1 outfit (actor can help)
   a. Undo fastening
   b. Help lift over head or off arms
5. Assist the performer into scene 2 outfit
   a. Do fastenings – must be completely buttoned, zippered, laced
   b. Put on hats or accessories
6. Rehang scene 1 outfit
7. Cross the start line

**Scoring**
Record the number of minutes/seconds to accomplish the above based on speed, smoothness of change and
final look.

**Penalties** - Add the time shown to a score if:
Not prepped in 15 sec. (+2 seconds)
Outfit not hung or hung right (+3 seconds)
Scene 2 outfit is folded, bunched up (+5 seconds)
Not on right (not snapped, hooked) (+5 seconds)
Missing accessories – hat, scarf, etc. (+5 seconds)
For unnecessary roughness of the actor (+5 seconds)

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**EVENT 7  SOUND SYSTEM SET-UP**

In this event the contestants will be required to:
- Set up a mixing board AND amp (or a powered mixer)
- Set up a speaker connected to the amp/mixer
- Connect a CD player to the mixer
- Play a sound clip from CD
- Connect a microphone to the mixer
- Test the microphone
- Fade up sound of the mike and the CD without a lot of distortion

The sequence of steps above seems like a logical progression, but can be modified as necessary.

**Scoring**
Record the number of minutes/ seconds to accomplish the above based on speed and the accuracy with which
the components are set up

**Penalties** - Add the time shown to a score if:
Cables not in the correct input/output (+5 seconds)
Something does not work (+5 seconds)
Sound is not clear or not faded up
**EVENT 8**  “HOLLYWOOD” HARD COVER WINDOW FLAT CONSTRUCTION

(This is a “team” event and requires 2–3 competitors)

Using pre-cut materials, team members will have to assemble a “Mini” standard window flat using "Hollywood" style construction. Team members will have to:

1. Lay out all pieces for the flat correctly
2. Measure pieces to be sure they are using the correct pieces in the correct places
3. Correctly label the following pieces:
   • Rail  • Stile  • Toggle – horizontal  • Toggle – vertical
4. Square the outside corners of the flat
5. Screw together frame using 1 5/8” drywall screws
6. Screw in luan covering with 1” screws

**Scoring**
Record the number of minutes/seconds to accomplish the above based on speed, accuracy and the final look. All pieces must be assembled and labeled correctly. Correct screws must be used to attach frame pieces together and to attach the luan covering. Participants must demonstrate correct and safe use of tools including wearing safety goggles during the drilling of screws.

**Penalties** - Add the time shown to a score if:

- Frame is not square  (+2 seconds)
- Pieces are not labeled correctly (+2 seconds for each mislabeled board)
- Incorrect screws used for assembly of frame or covering (+2 seconds per part of flat)
- Screws sloppily installed or screwed in such a way as to crack the frame

There will be a **maximum** time for this event so as not to have students spending too long on the event.