



## Human Performance Improvement Task Group

### Task 21-2 Portable HPI Lab Platform



### Team Members

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## Introduction

Human performance is generally recognized as a series of behaviors and actions that are carried out to accomplish a specific task. The Department of Energy DOE Standard Human Performance Improvement (HPI) Handbook Volume 1: Concepts and Principles (DOE-HDBK-1028-2009) is an excellent resource for overall understanding of HPI. It describes Human Performance Improvement as a set of concepts and principles associated with a performance model that illustrates the organizational context of human performance. The model contends that human performance is a system that comprises a network of elements that work together to produce repeatable outcomes. Many organizations, especially those that involve complex or hazardous activities utilize HPI principles in an effort to improve their work force's human performance. The Department of Energy DOE Standard Human Performance Improvement (HPI) Handbook Volume 2 Human Performance Tools for Individuals, Work Teams and Management provides a set of practical methods and techniques to improve human performance.

One method that provides a very effective way to demonstrate the principles of HPI are Dynamic Learning Activities (DLAs). They are designed to be practical, hands-on activities that help individuals recognize error precursors that may impact their work, then apply selected error reduction tools to mitigate the risk of errors.

They are intended to be very "loose" with no formal lesson plans, enabling learning objectives, or other typical training factors. They typically work best if the work group "influencers" deliver the exercises, instead of a trainer. However, it is important that the individual leading the exercise has a thorough understanding of HPI principles. They should be fun and engage everyone in the room in HPI error reduction tools and error precursor discussions. DLA's are designed to provide practical exercises that deepen the participants understanding and make these concepts memorable through incorporation of emotional triggers.

The activities have been performed with numerous groups around the DOE Complex and they often take different directions based on the participants. Operations personnel, maintenance workers, construction workers, etc. have differing perspectives that impact how these DLAs play-out. One thing that has remained constant is that understanding and applying these basic HPI principles during performance of a DLA can have a positive impact on human performance.

The consistent use of HPI principles has been proven to be an effective method of reducing errors in the workplace.

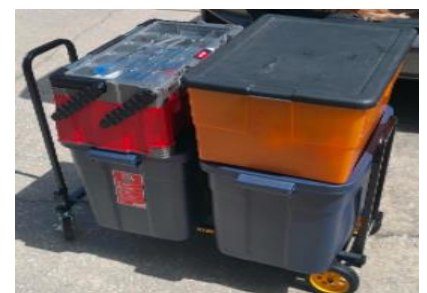
Some sites use classroom environments to teach the principles of HPI and to perform the Dynamic Learning Activities. This can present logistical challenges such as security, scheduling, and geographical issues, so we have pursued the development of a portable HPI cart that supports taking DLAs to the individual's workplace.

### Portable HPI Lab

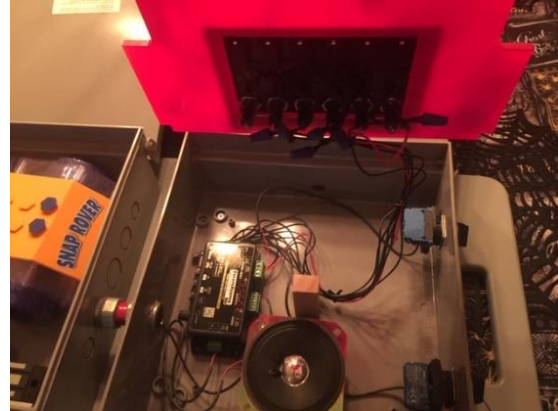
While evaluating options to develop a portable HPI lab, there were multiple factors to be considered, such as, should the portable lab be developed using a vehicle, a trailer, or a hand cart. Another consideration was the number and type of DLAs to be included and the supplies and materials that would be needed for the instructor.

After researching and discussing these considerations, the team determined that using a small hand cart provided the most flexibility for a portable HPI lab. Utilizing a light weight, collapsible hand cart allows one person to easily transport the HPI lab to the most convenient location for the participants. After some evaluation, the team determined that a four wheeled hand cart was the best option.

- A four wheeled expandable cart such as, the Rock-N-Roller R2RT Multi-cart™, meets the identified requirements. This cart can be handled easily by one person and can be placed into the back seat or trunk of a vehicle. The specifications for the cart are included in Attachment 1 below.
- This style of cart allows the use of multiple totes for transporting the DLA supplies. Multiple game boards, other DLA supplies, binders etc. can be placed in the totes for transport. This allows the organizations to select the specific DLAs they would like to use based on the type of Human Performance issues most prevalent in their organization. Examples of some typical DLAs are included on Attachment 2 below.



While most of the DLA supplies are small and lightweight, some are larger and heavier. The suitcase-style electronic HPI trainer shown below weighs 30 lbs. and it measures 20 in. deep, by 23 in. width and 12 in. tall. The virtual escape room control panel is slightly larger and is just as heavy. Both of these DLAs are easily transportable on the cart.



### Summary

Human Performance Improvement principles include proven methods to improve your organization's performance, and Dynamic Learning Activities provide an excellent method to instill the desired behaviors and actions in your workforce. Our team's task was to develop a best practice to identify how to develop and utilize a portable HPI lab platform.

Our team determined that the use of a portable cart to take these activities to your workers provides an effective method to allow frequent use of the DLAs. Attachment 1 below provides specifications for the cart and Attachment 2 provides a sample of DLAs that could be easily transported on the cart. Of course, other cart configurations and DLA's are available that may suit your organizational needs better. Sample DLAs are also available @ EFCOG.org.

Use of a portable HPI lab provides another valuable tool on your organizations journey to improve human performance. The Energy Facility Contractors Group (EFCOG) Worker Integrated Safety Management Subgroup HPI Task team is another valuable resource for gaining deeper knowledge of HPI principles. Additional references are listed below.

## References

If you have any questions regarding the content of this paper, please contact:

- Savannah River Site HPI Chairperson Daryl Smoldt @ (803-761-2738)
- Savannah River Site HPI Working Group Member Cassie Sistare @ (803-679-0080)

EFCOG.org

Working Groups / Safety / Integrated Safety Management Subgroup / Human Performance Improvement Task Team / Learning and Reference Materials / HPI Labs and DLAs

DOE-HDBK-1028-2009 Human Performance Improvement Handbook Volume 1 Concepts and Principles

DOE-HDBK-1028-2009 Human Performance Improvement Handbook Volume 2 Human Performance Tools for Individuals, Work Teams and Management

## Attachment 1



### Dimensions

- Width: 11"
- Length: 26" collapsed as shown above
- Height: The wheels are 6" tall
- Height: The tall handlebar is 30" tall
- Height: The shorter handlebar is 20"

Estimated cart cost: less than \$100

\*Organizations can select and obtain plastic bins that support their specific organization's needs. \*

## Attachment 2

### LEGOS

#### Human Performance Improvement (HPI)

#### Dynamic Learning Activity (DLA)

Course Code: CNPSDLA8

#### INTRODUCTION

HPI DLAs have been introduced to Savannah River Site by the HPI Working Group in an effort to provide practical exercises that support HPI principles. They are all designed to be informal, with no specific lesson plans, Enabling Learning Objectives, or other typical Training factors. They should be fun and engage everyone in the room in HPI error reduction tools and error precursor discussions.

The purpose of a Dynamic Learning Activity (DLA) is to provide an opportunity for workers to use their skills and knowledge while performing tasks/activities in a simulated environment.

Additionally, a DLA can be used to detect latent organizational weaknesses and improve work processes and procedures.

A Dynamic Learning Activity has four parts:

- Preparation
- Facilitator introduction and pre-activity briefing with the participants
- Activity
- Post-activity discussion

The desired outcome is to perform the DLA in a manner that the participants identify the error precursors that created challenges during the activity and then determine which error reduction tool(s) would effectively mitigate the challenges. The discussions may also include related topics such as Disciplined Operations, teamwork, attention-to-detail, etc. The facilitator may need to prompt the discussion by asking questions related the HPI principles.

DLAs work best if the work group "influencers" deliver the exercises, not necessarily a Site Trainer.

It helps to have an established relationship with the audience. The HPI Working Group has HPI Practitioners available to perform the initial DLAs for facilities/work groups and can then turn the subsequent DLA exercises over to them going forward.

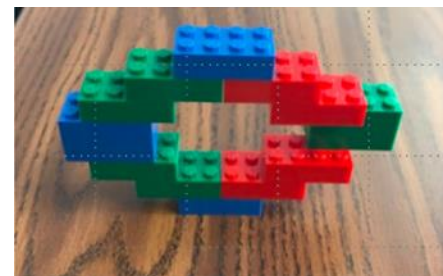
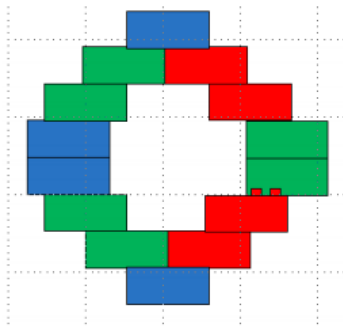
#### **Preparation**

Obtain enough bags of Legos for each two-person team to have a bag, and a timer of some sort.

Also, ensure you have a location reserved for the DLA to be performed.

Plan to introduce error precursors, time pressure, stress, distractions, etc. during the exercise.

You can choose to either use only Attachment 1, or Attachment 2, or a combination of both.



Images above utilize 14 Legos, but users can develop their own shapes as needed.

Estimated cost: Less than \$50.00

Additional information on this DLA can be obtained from Daryl Smoldt @ 803-761-2738 or Cassie Sistare @ 803-679-0080.

#### **Pre-Activity Briefing and Facilitator Introduction**

Introduce yourself and provide a general description of the DLA. State that this is a very simple exercise, so you expect everyone to be successful. State that it isn't a competition between the teams, but that it will be interesting to see who "wins".

The reader/worker method is to be used for this exercise. The workers cannot see the image of the Legos, and the reader cannot see the Legos being assembled during this activity. The operator will be the worker and is assigned to assemble the Legos and the SOM will be the reader. No pre-job briefing is allowed.

#### **Activity**

Pass out an image of the Legos to each reader of a two-person team. Do not allow the worker to see the image.

Pass out a bag of Legos to each two-person team.

Announce to the participants that they have exactly 5 minutes to complete the correct construction of the Legos.

Inform every team that they are not allowed to call a time out.

While the DLA is being performed, introduce more error precursors such as time pressure.

#### **Post-Activity Discussion**

Ask the participants how they did with constructing the Lego image.

Ask about the error precursors that they had to overcome, and what error reduction tools were used.

Show the participants the correct construction of the Legos based on the image.

Go into the importance of being able to work well under time pressure, and how even the simplest mistake can have huge repercussions.



**Bio Plant Bolt Widget Assembly**  
**Human Performance Improvement (HPI)**  
**Dynamic Learning Activity (DLA)**

Course Code: CNPSDLA5

**INTRODUCTION**

HPI DLAs have been introduced to Savannah River Site by the HPI Working Group in effort to provide practical exercises that support HPI principles. They are all designed to be informal, with no specific lesson plans, Enabling Learning Objectives, or other typical Training factors. They should be fun and engage everyone in the room in HPI error reduction tools and error precursor discussions. The purpose of a Dynamic Learning Activity (DLA) is to provide an opportunity for workers to use their skills and knowledge while performing tasks/activities in a simulated environment. Additionally, a DLA can be used to detect latent organizational weaknesses and improve work processes and procedures.

A Dynamic Learning Activity has four parts:

- Preparation
- Facilitator introduction and pre-activity briefing with the participants
- Activity
- Post-activity discussion

This DLA requires each team to assemble a Bio Plant Bolt Widget in a timely manner and that exceeding the time limit will cause damages and participants want to use ALARA requiring the minimization of time exposed to the bolt widget.

**Preparation**

Print enough copies of the procedures for the participants. They will be in 3 person groups.

Ensure you have enough "bolt widgets" with all pieces for the participants to successfully complete the assembly. At the facilitator's discretion, some bags may be prepared with all parts assembled on the bolt, some may be completely disassembled, and some just have one silver nut on the bolt.

Plan to introduce some precursors such as time pressure, have a visitor come to the room and distract the participants by encouraging conversation and even keeping one of the pieces of the bolt widget.

Enforce the idea that this is a competition, and the participants are being timed. The group that finishes the assembly correctly in the shortest amount of time, gets a "prize", (bragging rights or a real prize).

**Facilitator Introduction and Pre-activity Briefing**

Introduce yourself and provide a general description of the DLA.

- "Today we will be implementing a required modification for the Bolt Widget. This will be a timed event. You have exactly 10 minutes to complete the assembly successfully".
- Inform the participants they can use any HPI tools they choose, but they have only 10 minutes to complete everything.
- The reader/worker method is to be used for this exercise. The workers cannot see the procedure during this activity and the reader cannot see the Bolt widget assembly. The SOM will be the reader and will lead the pre-job briefing for this scenario. All 3 team members can discuss the procedure during the PJB.
- The QA inspector can perform the verification of the bolt widget, but the QA inspector cannot assist with the assembly. The operator and QA inspector do NOT have a copy of the procedure during performance of the procedure and must rely on the SOM to read the procedure to them.

**Activity**

- Have each team of three gather at their work location.
- Provide each group a bolt widget bag and a copy of the procedure/pre-job briefing form face-down at their work location and instruct them not to open the bag or look at the procedure until instructed to do so.
- Start the exercise without further direction.
- While the DLA is being performed, the facilitator can:
  - Add error precursors, for example, saying out loud how much time has elapsed, cause distractions and interrupt groups
  - Watch for ensuring that all parts of the widget are on hand (or give a group an extra)
  - Take note if any of the groups do not know what, "embossed" means

**Post-Activity Discussion**

- Stop the exercise at exactly 10 minutes
- Take note if any of the teams did not complete the assembly
- Have the teams discuss the problems they encountered and error precursors that impacted their performance.
- Help shape the discussion around the error precursors and error reduction tools.
- Allow time for the participants to explain what they thought about the DLA.
- After all of the teams have discussed their challenges with this exercise, the facilitator can say something like:
  - "Hey, it looks like we've all had a little fun with this and had a good discussion about HPI Principles, but I also want to talk about the seriousness side of human performance. Most of what we talked about were relatively small errors, but even small errors can have horrible consequences". Stress the importance of HPI tools.

<b>Bio Plant Bolt Widget Assembly</b>	Procedure:	TRN-B-0526
	Revision:	1
	Effective Date:	07/07/2020
	Type-Class:	Tech-UET
	Page:	Page 1 of 5

**1.0 INTRODUCTION**

**1.1 Purpose**

This procedure provides instructions for implementing a required modification for the Bio Plant Bolt Widget.

**1.2 Scope**

This modification is applicable for all Bolt Widgets in the Bio Plant.

**2.0 GENERAL INFORMATION**

**2.1 Information**

Timely assembly of the Bio Plant Bolt Widget assemblies is required for the operation of the Bio Plant.

**3.0 PRECAUTIONS AND LIMITATIONS**

**3.1 Safety Requirements**

- 3.1.1 For biological contamination considerations, only one worker should be assigned to touch and install the parts.
- 3.1.2 Order of parts placement on the Bolt Widget is critical to operability.
- 3.1.3 IF the modification is not completed in 10 minutes, THEN, notify the control room to stop all production.

**4.0 PREREQUISITES**

- 4.1 Bio-shield bag must be obtained with all required parts contained within it.



## Bolt Widget Parts List

Parts are to be Zinc with the exception of the Wing Nut which is Stainless Steel:

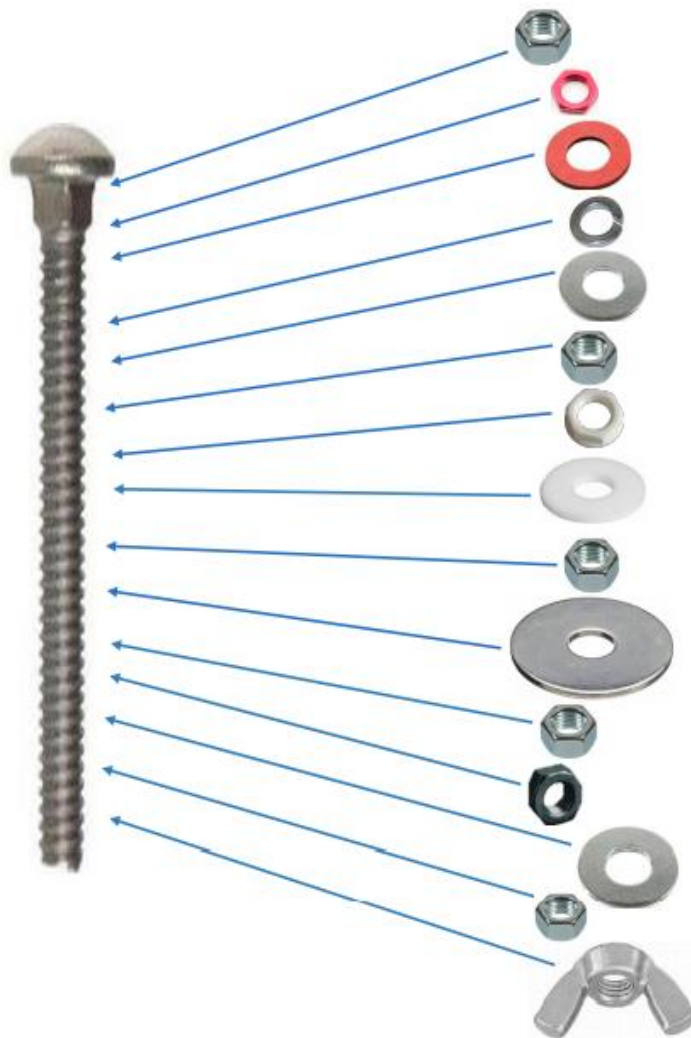
Paints listed below are used to paint washers and nuts the correct colors per the procedure:

Spray Can of Black, White, Red Paint

Parts for one Bolt Widget are listed separately and in bags of 16 to 25 parts as noted to reduce cost.

Number Required	Part	Lowes Part Number (Each)	Lowes part Number (Bag) + # Per Bag	Cost Each	Cost Per Bag
1	4"X 3/8 Carrier Bolt	63344	NA	\$.74	NA
8	3/8 Nut	NA	43570 + 16	NA	\$2.78
4	3/8 Small Washer	63308	NA	\$.14	NA
1	3/8 Wing Nut	NA	136272 + 2	NA	\$2.90
1	3/8 LockWasher	63410	44018 + 25	\$.22	\$4.58
1	3/8 X 1 1/2 Large Washer	68884	NA	\$.18	NA

Depending on how you buy the parts, each Bolt Widget costs about \$4.55 plus the cost of paint and labor for the painter.



Additional information on this DLA can be obtained from Daryl Smoldt @ 803-761-2738 or Cassie Sistare @ 803-679-0080.

**Snap Circuit Sump Level Alarm**  
**Human Performance Improvement (HPI)**  
**Dynamic Learning Activity (DLA)**  
**Course Code: CNPSDLA3**

HPI DLAs have been introduced to Savannah River Site by the HPI Working Group in effort to provide practical exercises that support HPI principles. They are all designed to be informal, with no specific lesson plans, Enabling Learning Objectives, or other typical Training factors. They should be fun and engage everyone in the room in HPI error reduction tools and error precursor discussions. The purpose of a Dynamic Learning Activity (DLA) is to provide an opportunity for workers to use their skills and knowledge while performing tasks/activities in a simulated environment. Additionally, a DLA can be used to detect latent organizational weaknesses and improve work processes and procedures.

A Dynamic Learning Activity has four parts:

- Preparation
- Facilitator introduction and pre-activity briefing with the participants
- Activity
- Post-activity discussion

This DLA requires each team to build and test the temporary training sump water level alarm.

**Preparation**

You will need a flat surface to set the game boards up, enough snap circuit boards and batteries for each 3-person team to have one.

Try to place the game boards with some space between them, a few feet. Do not allow the teams to open the boxes until you tell them to start. You need 3 workers per team, (Shift Manager, SOM operator and QA inspector). If desired, you could remove a needed part from one of the boxes, remove a page of the procedure or provide dead batteries prior to entering the room. If the team recognizes the problem during the pre-job briefing or during the exercise, you can simply state that, "oh I forgot this part or this page", and then provide it to them and they can continue. Bring Salt! Provide some teams with salt water and some with bottled or filtered water. Mark the saltwater cups with a small "s" on the bottom of the cup. Saltwater is a good conductor of electricity because it is a rich source of sodium ions. Bottled or filtered water does not typically have enough conductivity for the circuit to alarm, so saltwater should be used for most supply water. The facilitator should prepare supply water without the participants observing. Bring salt. Make sure to bring at least 2 cups per team. Label one cup for each team, "sump" and label one cup for each team, "supply water". Make sure you bring the "Snap circuits Junior" snap circuits for the activity. Bring two AA batteries per "Snap circuit Junior" you bring to the activity. Prepare a copy of the procedure and pre-job briefing form for each team.

**Post-activity discussion**

- Stop the exercise at 30 minutes. Have the teams discuss the problems they encountered and error precursors that impacted their performance.
- Help shape the discussion around the error precursors and error-reduction tools.
- Allow time for the participants to say their answers and open the floor for discussion.
- Ask all participants if anyone stopped and took a time out, if anyone made sure they had all their equipment, if anyone checked and made sure they had batteries etc.
- If a group used bottled or filtered water, ask if they took a timeout when they realized their sump was not working. If they did, ask what they discussed that could have been the reason why. If they did not take a timeout, ask why they did not take a timeout.
- After all the teams have discussed their challenges with this exercise, the instructor can state something like:
  - "Hey, it looks like we've all had a little fun with this and had a good discussion about HPI principles, but I also want to talk about the seriousness side of human performance. Most of what we talked about were relatively small errors, but even small errors can have horrible consequences". Stress the importance of use HPI fundamentals and strong disciplined operations.

Estimated price per game board: Approx. \$30.00

**Facilitator Introduction and Pre-activity Briefing**

Introduce yourself and provide a general description of the DLA.

Tell the participants that each team is assigned to assemble a temporary sump level alarm in a timely manner and that exceeding the time limit will potentially result in facility flooding. They can use any HPI tools for the exercise, but the total time allowed is 30 - minutes. This time includes the pre-job briefing. Tell everyone they must use the phonetic alphabet when putting the circuits together. The participants cannot open the boxes until they start their pre-job briefing.

The reader/worker method is to be used for this exercise. The workers cannot see the procedure during this exercise and the reader can not see the snap-circuit game board during this exercise. The operator will be the worker and is assigned to assemble the alarm circuit. The SOM will be the reader and will lead the pre-job briefing for this scenario. All 3 team members can discuss the procedure during the PJB.

The QA inspector can perform the IV & QA Hold Point steps, but cannot assist with the assembly. The operator and QA Inspector do not have a copy of the procedure during performance of the procedure and must rely on the SOM to read the procedure to them.

**Activity**

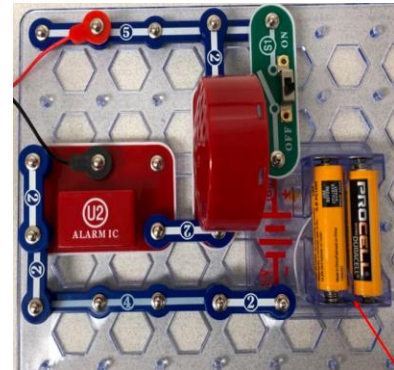
Instruct the participants to open their boxes and take out the main circuit board.

Start the exercise without further direction, provide a copy of the procedures and the PJB OSR form to each team and start the 30 - Minute clock.

While the DLA is being performed, the facilitator can:

- Add error precursors, for example, saying out loud how much time has elapsed, cause distractions and interruptions.
- Watch for not ensuring all parts are on hand.
- The safety section tells you not to exceed half full, but step 5.3 tells you to add water until you receive the alarm. Many of the steps are very vague and should be clarified during the pre-job briefing.

After all participants have completed the circuits, the teams with the bottled or filtered water may notice their circuit did not work. Make sure to take note if they took a time out or if they continued trying to make the circuit work, (continued adding more water).



Additional information on this DLA can be obtained from Daryl Smoldt @ 803-761-2738 or Cassie Sistare @ 803-679-0080.

HuPerT Trainer  
Human Performance Improvement (HPI)  
Dynamic Learning Activity (DLA)  
Course Code: CNPSDL13

**INTRODUCTION**

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A Dynamic Learning Activity has four parts:

- Preparation
- Facilitator introduction and pre-activity briefing with the participants
- Activity
- Post-activity discussion

This DLA requires each team to operate the HuPerT Electronic Trainers in accordance with procedure 707-7B-HUP-001.

**Preparation**

Ensure the training instructor has completed the HPI CBT training, the SRS-HP-01 is comparable.

Review and become familiar with procedure 707-7B-HUP-001 and 707-7B-HUP-002. For the HuPerT Procedures, you will be using the Instructor Guide, 707-7B-HUP-002.

The students will use the Student Guide, 707-7B-HUP-001.

Ensure you read and review the HuPerT Instructor Guidance pages below as they will assist you with implementing faults and further explain how the HuPerT machine works.

Ensure students have completed a minimum of one HPI prerequisite course.

Print enough copies of procedure 707-7B-HUP-001 for each two-person team.

Ensure you have enough cleaning supplies, such as, gloves, paper towels and cleaning wipes to sanitize the HuPerT controls between participants. Do NOT spray the HuPerT Trainer with cleaner as it can damage the machine.

<b>HuPerT Trainer Student Handout</b>	<b>Procedure:</b>	<b>707-7B-HUP-001</b>
	<b>Revision:</b>	<b>1</b>
	<b>Effective Date:</b>	<b>09/17/2020</b>
	<b>Type-Class:</b>	<b>Tech-UET</b>
	<b>Page:</b>	<b>Page   3</b>

**5.1.6 LOCATE and FLAG** the following:

1. Hand switch 4P1AFBU25. \_\_\_\_\_
2. Indicator light 1133X6. \_\_\_\_\_

**5.1.7 PLACE** hand switch 4P1AFBU25 from **CLOSE** to **OPEN**.

1. **VERIFY** indicator light 1133X6 is **OFF**. \_\_\_\_\_

**5.1.8 LOCATE and FLAG** the following:

1. Push button 8AEVE3. \_\_\_\_\_
2. Indicator light 116X35. \_\_\_\_\_

**5.1.9 PUSH and RELEASE** push button 8AEVE3.

1. **VERIFY** indicator light 116X35 is **OFF**. \_\_\_\_\_

**5.1.10 LOCATE and FLAG** the following:

1. Hand switch 4P1AFBU26. \_\_\_\_\_
2. Indicator light 10X6X6. \_\_\_\_\_
3. Indicator light 10X356. \_\_\_\_\_

Estimated price per HuPerT Suitcase: Approx. \$16,000

Plan to introduce some precursors such as time pressure, consider having a visitor come to the room and distract the participants by encouraging conversation or introduce some other type of distraction.

**Facilitator Introduction and Pre-activity Briefing**

Introduce yourself and provide a general description of the DLA.

- "Today we will be working with the HuPerT Trainers".
- Inform the participants they can use any HPI tools they choose but are required to use the phonetic alphabet. This activity also emphasizes the use of flagging.
- The reader/worker method is to be used for this exercise. The workers cannot see the procedure during this activity and the reader cannot see the HuPerT Trainer.
- Discuss the use of flagging to be used during performance of the procedure.
- The HPI Practitioner can assist with resetting the machine if there is an error preformed.

**Activity**

- Provide each team a copy of the procedure face-down and instruct them not to look at the procedure until instructed to do so.
- While the DLA is being performed, the facilitator can:
  - o Add error precursors, for example, cause distractions and interrupt teams working.
  - o See if participants do not fully read the "notes".

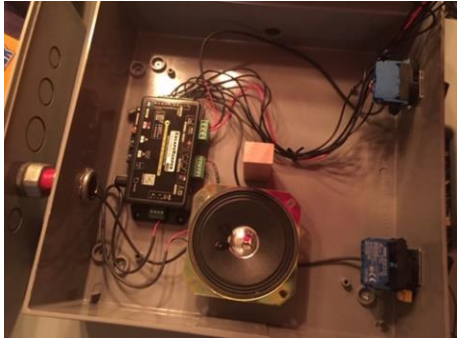
**Post-Activity Discussion**

- Have the teams discuss the problems they encountered and error precursors that impacted their performance.
- Help shape the discussion around the error precursors and error reduction tools.
- Allow time for the participants to explain what they thought about the DLA.
- After all the teams have discussed their challenges with this exercise, the facilitator can say something like:
  - "Hey, it looks like we've all had a little fun with this and had a good discussion about HPI Principles, but I also want to talk about the seriousness side of human performance. Most of what we talked about were relatively small errors, but even small errors can have horrible consequences". Stress the importance of HPI tools.



Additional information on this DLA can be obtained from Daryl Smoldt @ 803-761-2738 or Cassie Sistare @ 803-679-0080.





Escape Room Parts List

<u>Part</u>	<u>Cost</u>	<u>Website</u>
EccapeKeeper Controller	\$249.99	<a href="https://www.frightprops.com">Turn the Keys Puzzle Kit (frightprops.com)</a>
130LB. Magnetic Lock	\$29.99	<a href="https://www.frightprops.com">Turn the Keys Puzzle Kit (frightprops.com)</a>
Four Key Switches	\$99.96	<a href="https://www.frightprops.com">Turn the Keys Puzzle Kit (frightprops.com)</a>
Snap Circuits R/C Snap Rover	\$52.97	<a href="https://www.amazon.com/dp/B000000000">Amazon.com: Snap Circuits R/C Snap Rover Electronics Exploration Kit   23 Fun STEM Projects   4-Color Project Manual   30+ Snap Modules   Unlimited Fun,Black: Toys &amp; Games</a>
Combo locks	\$9.99	<a href="https://www.amazon.com">Amazon.com : combo locks</a>
Arlington Electronic Enclosure Box	\$38.00	<a href="https://www.amazon.com/dp/B000000000">Amazon.com: Arlington EB1212-1 Electronic Equipment Enclosure Box, 12" x 12" x 4", Non-Metallic, 1-Pack: Home Improvement</a>
Two position selector switches	\$49.98	<a href="https://www.frightprops.com">Two Position Selector Switch Trigger (frightprops.com)</a>
Double sided tape	\$5.29	<a href="https://www.amazon.com">Amazon.com : double sided tape</a>
9V batteries	\$11.99	<a href="https://www.amazon.com/dp/B000000000">Amazon.com: Amazon Basics 8 Pack 9 Volt Performance All-Purpose Alkaline Batteries, 5-Year Shelf Life, Easy to Open Value Pack: Health &amp; Personal Care</a>

Additional information on this DLA can be obtained from Daryl Smoldt @ 803-761-2738 or Cassie Sistare @ 803-679-0080.