

How can capturing screen activity and audio (voice or computer) in video be used to promote UDL in your classroom and school?

Plan

- KWL
 - Why screen capture?
 - Instructional uses
 - Collaborative planning and staff development
- Screen Capture Tools
 - Group Projects Choices (will briefly share)

Why screen capture?

- UDL: Less Students Left Out
- UDL Principle 1: Multiple Options for Representation
- UDL: Building Capacity at Your School
- Learn more about UDL



Screen Capture Tools

- [ActivInpsire](#)
[Screen Recorder](#)
- Online (with easier download option):
[Screen-Casto-](#)
[Matic](#)
- Online: [Screenr](#)



My Experience with UDL and screen castings

- Background
- Issues
- How I incorporated UDL
- Outcome
 - Student
 - Teacher
- Student feedback
- Tips on screen castings

My Classroom

- Teach Introduction to Engineering Design
 - Autodesk Inventor
- Course also includes critical thinking skills, problem solving, math, and science
- Tech requirement – EVERYONE takes the class
- 30 computers
- LMS

Issues

- Different levels of previous knowledge and speeds of learning
- Using Autodesk Inventor is very procedural and students were missing steps to create projects.
- Putting out the same “fires”
- Grades were inconsistent/incomplete

Shift to UDL

- Created many avenues to provide instruction
 - Demonstration
 - Written/picture tutorials
 - Screen castings



Written/picture tutorial



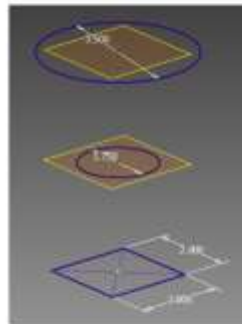
INTRODUCTION TO ENGINEERING DESIGN

MR. BROWN

CUP PROJECT

Cup, Loft – Loft command

1. Use the XZ plane to start a new sketch. Create a 2" x 2" rectangle centered over the Origin.
2. Use the XZ plane and offset a "Work Plane" 2.5". This will be half the height of the cup. Create a circle on the new "Work Plane" with a diameter of 1.75" and centered on the Origin.
3. Offset another work plane from the XZ plane 5". Draw a 3.5" diameter circle centered on the Origin.
4. Loft the bottom of the square to the middle circle and then to the top circle.



Shell

5. Select the Shell command and select the top of the cup. Set the thickness to .125".
6. Edit the Shell base of the cup to be .50" thick. Change the view to wireframe to see the different thickness.



Filler

7. Fill the top edges of the cup to .05" using the loop option.



Cup Handle – Sweep Command

8. Offset a Work Plane 1.125" from the YZ plane. Place a new sketch on this offset plane and press F7 to slice the graphics. Draw a .375 diameter circle on the area where the slice graphics cut through the cup. Finish the sketch.
9. Now create another work plane using the XZ plane to create the sketch for the handle. Use the Spline command to sketch the *two* parts of the handle.



10. Use the **Coil** command and select the circle and spline. A preview of the handle should appear in the workspace. If it does not preview, then check the path intersection, size of the circle, or the path of the handle. Double check to make sure all of the handle meets the outside of the cup. Also make sure the handle does not go through the cup.



11. To create a second handle, use the mirror tool. Make sure to use the appropriate plane to mirror.



12. Use the properties to change the material.

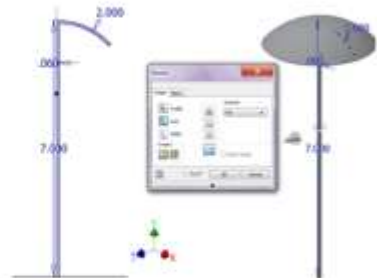


CUP EXTRAS – Make sure all new .ipt files are in the same project folder!

Umbrella – Revolve command

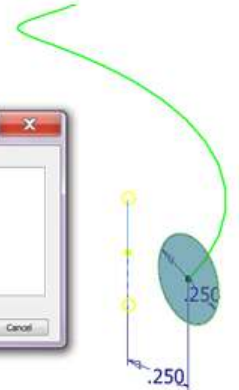
13. Create a new .ipt and create a new starting from the origin with a height of 7". Create a 2" arc for the umbrella section. Offset the outline .06" and then cap the ends. Use the

command to revolve around **Revolve** in axis.



Straw – Coil Command

14. Start a new .ipt and draw a sketch on the **X,Y** plane. Draw a .25" diameter circle .25" away from the origin. Select the **Coil** command and coil the circle around the Y axis. Choose



Coaster/Base – Product Enhancement Activity

This assignment is a challenge to design a coaster or base that a company could sell as an accessory to the cup. The project requirements are as follows.

1. Design brief
2. Two generated solutions – Annotated thumbnail and conceptual sketches
3. Completed decision matrix to show a final solution
4. Concept designed in Inventor with a dimensioned, multi-view drawing and exploded view with a parts list.

The final project must be in a Word document file with titles and headings in the order that is listed. Upload the document to the LMS under the "Product Enhancement" assignment.

Uncertainty of UDL

- Rigor
- How do I know if they are learning?
- Students may not have computer/internet at home



Results - Student

- Projects were making the due dates
- Grades were improving
- Confident
- Asked higher level questions



Results - Teacher

- Students were learning!
- Finally on schedule!
- Less “fires”
- Able to challenge advanced students
- Helps absent students.
- Requires more out of class time.



Student Feedback

- *“It helps me learn because it goes step by step. I can slow it down and go back to things.”*

- *“I feel more confident because I learned the basic skills of Inventor to create my own projects.”*

Student Feedback con't

- *“It breaks it down so it is easier for me. I like the videos.”*
- *“I like the videos because it helps me what to do next.”*

Administrator Feedback

- Observed in a class where students were using screen casting.
 - That's all they talked about afterwards
- Was included in the end of the year evaluation
- Think its great for students with different instructional needs.

IEP Accommodations

- Covers all grounds
- Helps students who need it
- Shifts the emphasis to student accountability
 - Works well with the “panic meetings”



Tips with screen castings

- Keep videos short
 - segments
- Use it to reinforce demonstration
- Determine best place to save files



Instructional Use Example

- HS Biology
– routine
flipping of
instruction

Ms. Paul Flips for UDL with Screencasting!

04/10/2014

0 Comments

I know that I already wrote about Ms. Paul and her work as a chemistry teacher at Wheaton High School a couple of posts ago...but I wanted to show you more of her class in action. Here she is...in her own words!

Ms. Paul Flips for UDL with Screencasting!



Inspired to screencast? Can you see yourself using screencasting to scaffold student learning? I found some resources to help you learn how to use the Activinpire tool for screencasting. Here is a [Youtube video](#) below and a [PDF link of step by step instructions](#). You can make a choice!

In addition here's a short [screencasting article](#) that shares a few different ways that teachers can use this

Instructional Uses Example

- UDL:
Options for
Representati
on in SS8

Screen Capture to Support Access to Primary Documents and DBQs

Grade 8 Social Studies / Gina Woodward



Ms. Woodward demonstrates a screen capture she completed with ActivInspire to provide on-demand supports for vocabulary, background knowledge and higher level understanding for more students. Students share the impact the strategy had on their learning. A brief how-to demo is provided.

Tools: [Interactive White Boards](#),
[Edline](#)

UDL Principle: Multiple means of representation

UDL Guideline: [Options for comprehension](#)

Collaborative planning / staff development

- [HIAT Help Blog](#)
[example of informal video](#)

Wednesday, March 2, 2011

Digital Worksheets in MS Word - Self-paced Training

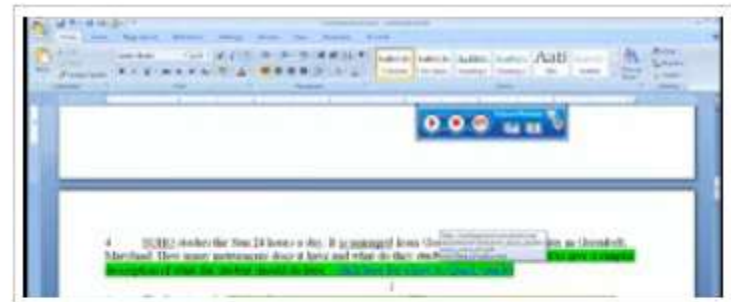
The following is an organization of resources that can give you an introduction to features in MS Word 07 that can be used to create more flexible worksheets for students.

Steps:

1. Download the following example worksheet.

This is the

example you will use to add the features to that are demonstrated in the following videos. Click to open the page and then download the file to your computer: [Su Worksheet.doc](#)



Group Projects Choices

- UDL Lesson Planning Incorporating Screen Capture
 - [Add your lesson plan](#)
 - [View plans others have submitted](#)
- Collaborative Planning and Staff Development
 - New things I learned at the Tech Academy: Create a screen cast to share