



UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE



Pencasting in University Agriculture Courses

Donald M. Johnson
University of Arkansas

Outline

- What is Pencasting?
- Why Pencast?
- What equipment do I need to Pencast?
- How do I make a Pencast?
- Can you show me some example Pencasts?
- Is there anything I would improve in my Pencasts?
- Can we have some discussion?
- Can I have a free LiveScribe Echo Pen?

What is Pencasting?

- A pencast is a video presentation where recorded penstrokes and synchronized audio are replayed.

It's like a podcast
only with a pen!

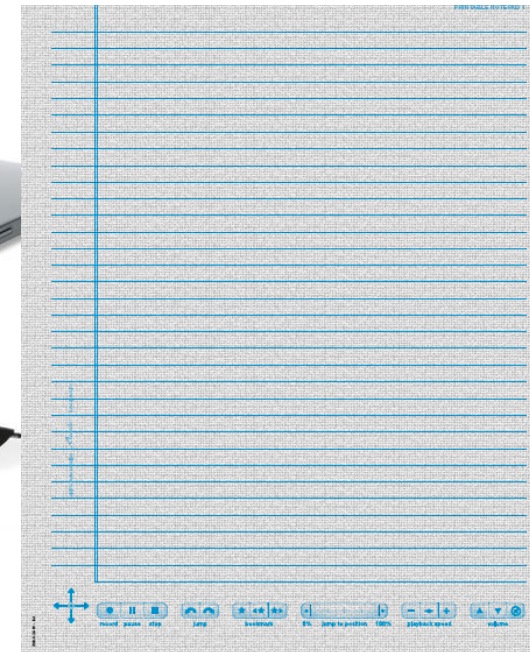
Why Pencast?

- **Pencasts:**
 - Are easy to make
 - **Allow teachers to:**
 - Model correct problem-solving behavior
 - Explain once instead of multiple times to individual students
 - Create reusable learning objects
 - **Allow students to:**
 - Review class materials as often as needed
 - Pause and rewind complex explanations
 - Work problems and get immediate feedback on both answers and processes
 - **Can be used in both F2F and on-line courses**

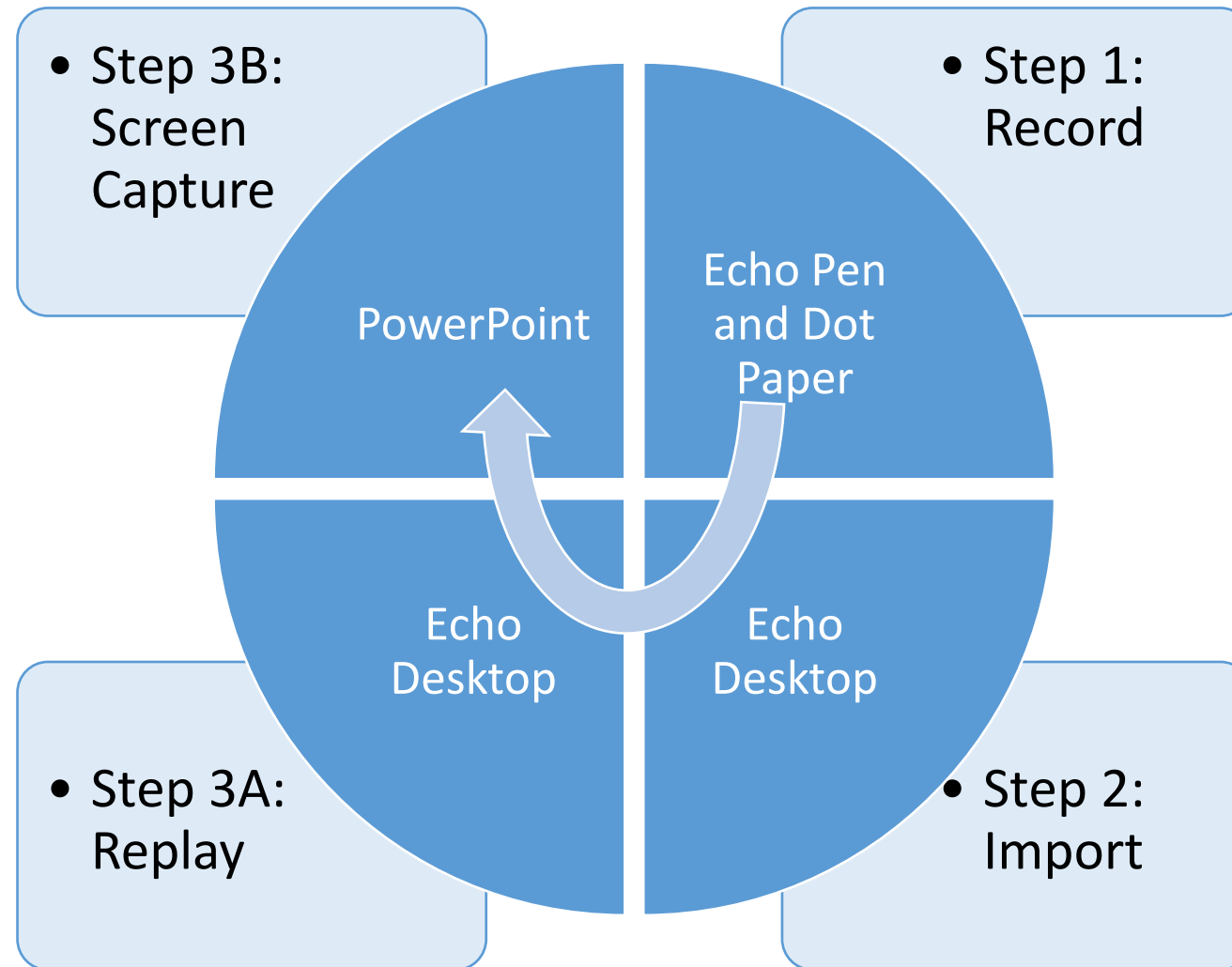


What equipment do I need to Pencast?

- Livescribe ECHO smart pen (\$179.95)
- Livescribe “dot” paper
 - Notebooks (\$9.95 / 100 sheets)
 - Free “sheet prints” from website
- ECHO Desktop (Free download)
- MS PowerPoint (w/ screen recording)
- Adobe Acrobat 10.0



How do I make a Pencast?



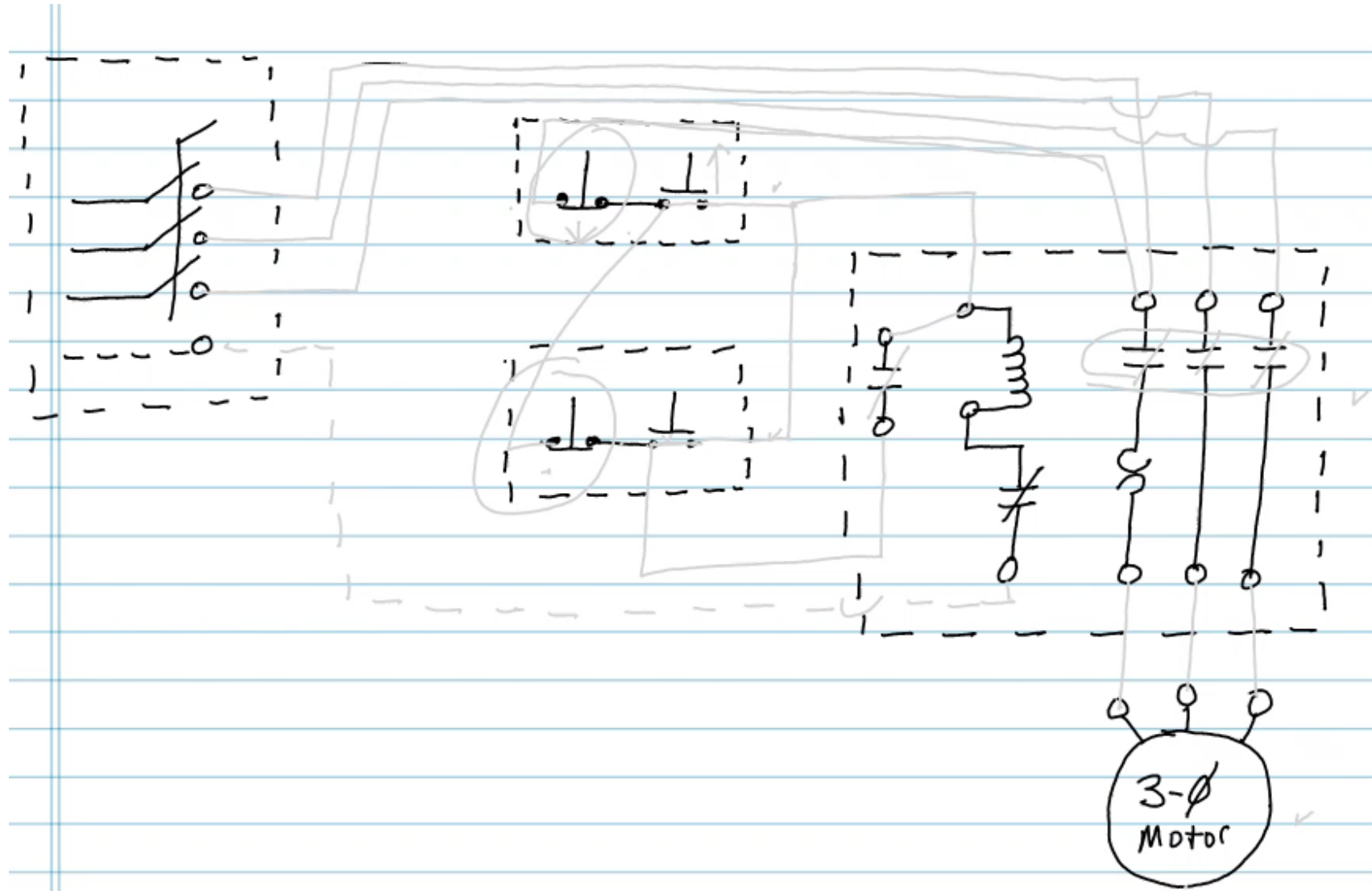
Example: Using the Unit-Factor Method

- A flatbed truck can haul 64 cases of widgets. Each case contains 24 boxes of widgets, and each box contains 24 widgets. Each widget sells for \$0.58. Assuming the truck can make four deliveries per day, how many dollars' worth of widgets can be delivered per day? **Use the unit factor method to solve this problem.**

The image shows a handwritten calculation on lined paper. On the left, a vertical line is drawn. To its right, the number 85,524 is written with a small '48' above it. Below this number is a horizontal line, and below that, the word 'day' is written. To the right of this is a multiplication sign, followed by a circled number '0.58' with a small '48' above it, and '1 widget' below it. This is followed by another multiplication sign, then '24 widget' above a horizontal line and '1 box' below it. This is followed by another multiplication sign, then '24 boxes' above a horizontal line and '1 case' below it. This is followed by another multiplication sign, then '64 cases' above a horizontal line and '1 truck' below it. This is followed by another multiplication sign, then '4 trucks' above a horizontal line and 'day' below it, which is circled.

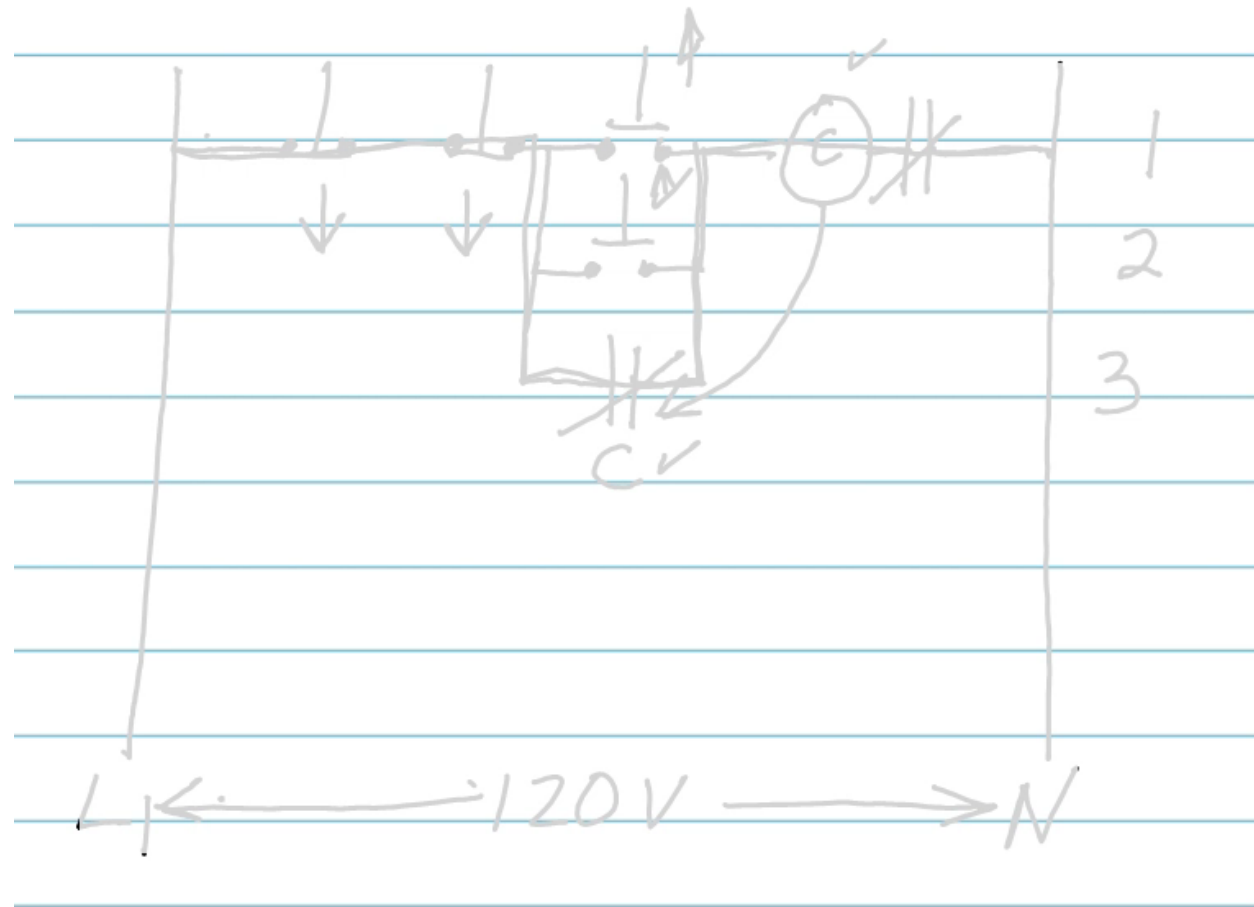
$$\frac{\$85,524}{\text{day}} = \frac{\$0.58}{1 \text{ widget}} \times \frac{24 \text{ widget}}{1 \text{ box}} \times \frac{24 \text{ boxes}}{1 \text{ case}} \times \frac{64 \text{ cases}}{1 \text{ truck}} \times \frac{4 \text{ trucks}}{\text{day}}$$

Example: Wiring a Magnetic Motor Starter



Note: Equipment grounding conductor not shown for clarity

Example: Relay Ladder-Logic Diagram



Is there anything I would improve in my Pencasts?

- Yes

- I wish:

- I could hide the ghost lines/text

- I could easily add pencasts to:

- Homework

- Exams

- CAD drawings

- My handwriting and drawing were better!

Can we have some discussion?

- Questions????
- Comments???
- Suggestions???
- Other???

Can I have a Free LiveScribe Echo Pen?

- **Yes**

Thanks to Livescribe for
donation of the ECHO pen!