

# CIS 400 Senior Design

## Fall 2014

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# Tips to be Covered

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- Outlines
- General Guidelines
- Making Power Point Slides
  - Slide Structure
  - Fonts
  - Color
  - Background
  - Graphs
  - Spelling and Grammar
  - Conclusions
- Questions



# Outline

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- Make your 1<sup>st</sup> or 2<sup>nd</sup> slide an outline of your presentation
  - Ex: previous slide
- Follow the order of your outline for the rest of the presentation
- Only place main points on the outline slide
  - Ex: Use the titles of each slide as main points



# General principles

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- Meet listener needs
- Use the medium appropriately
- Use visuals to support your presentation, not take it over
- Practice!

# Failure to meet listener needs

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- Intro has taken three minutes! Get to the point!  
(What IS your point?)
- Can't tell where you're going!
- Try to show a little enthusiasm!
- You dropped us at the end! Ask for questions!
- You didn't really practice, did you?!

# Presentation style distracts!

A decorative graphic consisting of overlapping yellow, red, and blue squares with a black crosshair.

- You're dancing.
- You're frozen.
- You're staring at me.
- You never look at me.
- All your sentences are questions?
- The screen has your undivided attention.



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Avoiding the Pitfalls of Bad Slides

# **MAKING POWERPOINT SLIDES**



# Slide Structure – Good

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- Use 1-2 slides per minute of your presentation
- Write in point form, not complete sentences
- Include 4-5 points per slide
- Avoid wordiness: use key words and phrases only





## Slide Structure - Bad

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- This page contains too many words for a presentation slide. It is not written in point form, making it difficult both for your audience to read and for you to present each point. Although there are exactly the same number of points on this slide as the previous slide, it looks much more complicated. In short, your audience will spend too much time trying to read this paragraph instead of listening to you.



# Slide Structure – Good

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- Show one point at a time:
  - Will help audience concentrate on what you are saying
  - Will prevent audience from reading ahead
  - Will help you keep your presentation focused



# Slide Structure - Bad

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- Do not use distracting animation
- Do not go overboard with the animation
- Be consistent with the animation that you use



# Arduino - Bad

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- **Arduino** is an open-source single-board microcontroller, descendant of the open-source Wiring platform designed to make the process of using electronics in multidisciplinary projects more accessible.
- The hardware consists of a simple open hardware design for the Arduino board with an Amtel AVR processor and on-board input/output support. The software consists of a standard programming language compiler and the boot loader that runs on the board.
- Arduino hardware is programmed using a Wiring-based language (syntax and libraries), similar to C++ with some slight simplifications and modifications, and a Processing-based integrated development environment.
- Current versions can be purchased pre-assembled; hardware design information is available for those who would like to assemble an Arduino by hand.

Source: <http://en.wikipedia.org/wiki/Arduino>



# Why Arduino?

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- Single-board microcontroller
- Simple hardware and software
  
- Questions:
  - Powerful enough?
  - Robust in this application?



# Fonts - Good

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- Use at least an 18-point font
- Use different size fonts for main points and secondary points
  - this font is 24-point, the main point font is 28-point, and the title font is 36-point
- Use a standard font like Times New Roman or Arial



# Fonts - Bad

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- If you use a small font, your audience won't be able to read what you have written
- CAPITALIZE ONLY WHEN NECESSARY. IT IS DIFFICULT TO READ
- **Don't use a complicated font**



# Colour - Good

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- Use a color of font that contrasts sharply with the background
  - Ex: blue font on white background
- Use color to reinforce the logic of your structure
  - Ex: light blue title and dark blue text
- Use color to emphasize a point
  - But only use this **occasionally**





## Color - Bad

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- Using a font color that does not contrast with the background color is hard to read
- Using color for decoration is **distracting** and **annoying**.
- Using a different color for each point is unnecessary
  - Using a different color for secondary points is also unnecessary
- **Trying to be creative can also be bad**



# Background - Good

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- Use backgrounds such as this one that are attractive but simple
- Use backgrounds which are light
- Use the same background consistently throughout your presentation

# Background – Bad

- Avoid backgrounds that are distracting or difficult to read from
- Always be consistent with the background that you use





# Graphs - Good

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- Use graphs rather than just charts and words
  - Data in graphs is easier to comprehend & retain than is raw data
  - Trends are easier to visualize in graph form
- Always title your graphs



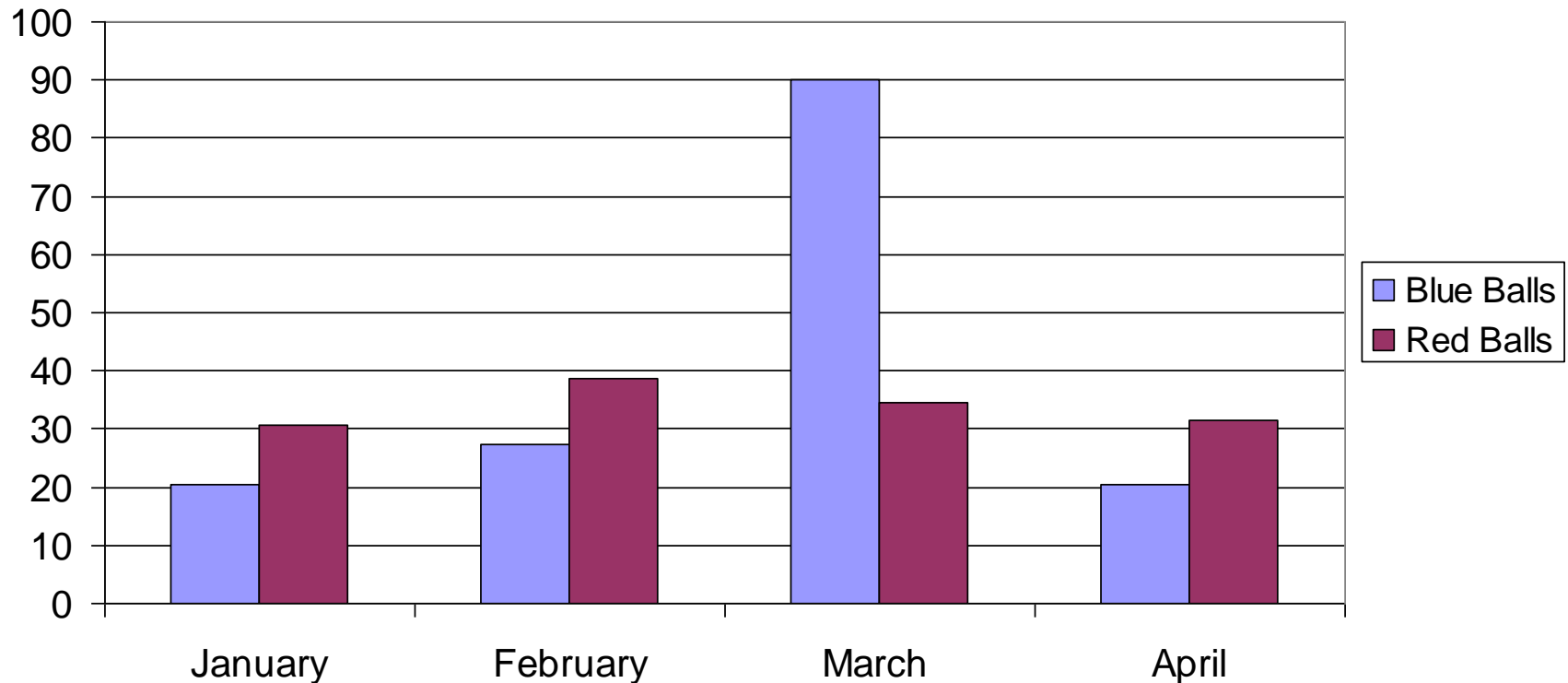
# Graphs - Bad

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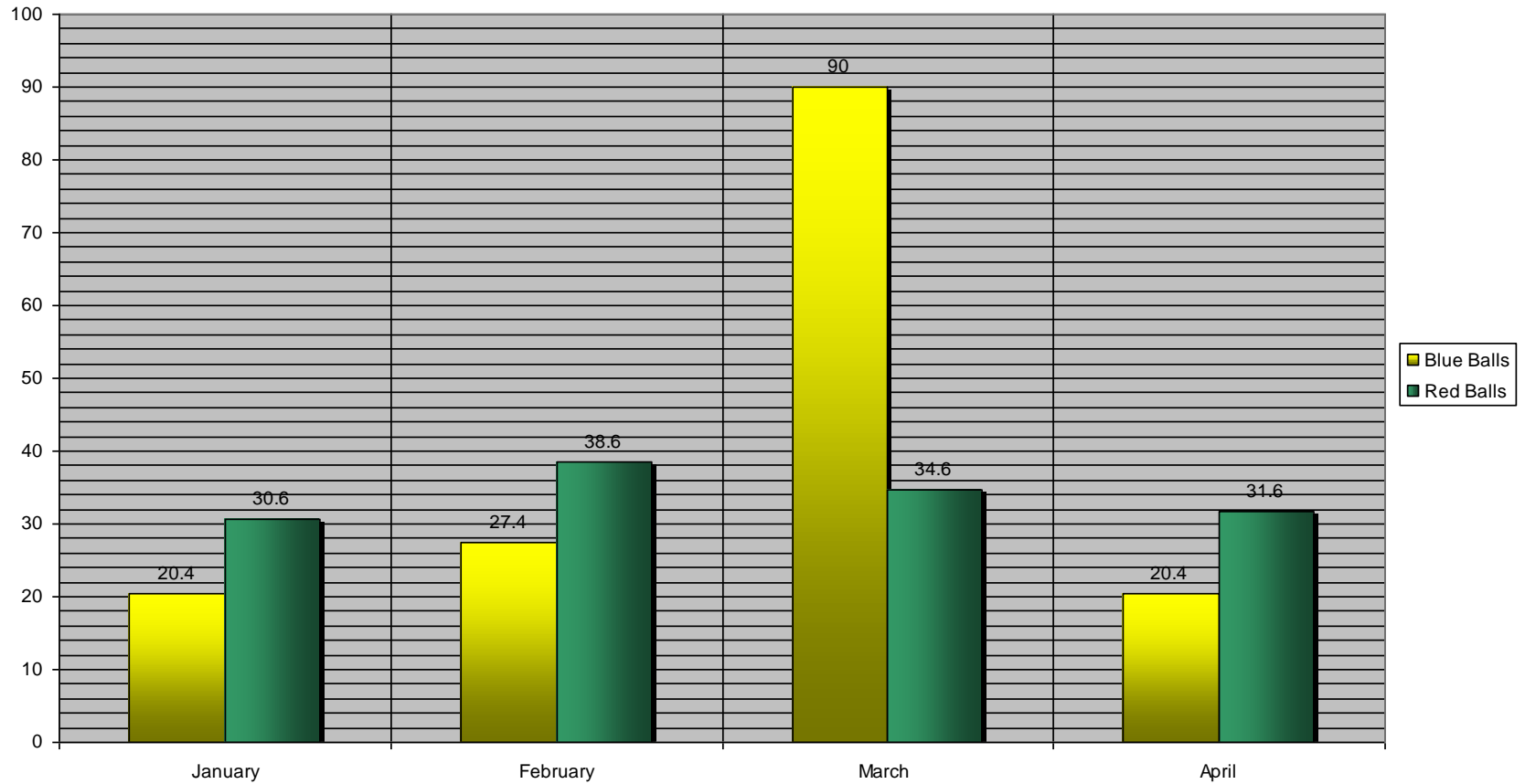
	January	February	March	April
Blue Balls	20.4	27.4	90	20.4
Red Balls	30.6	38.6	34.6	31.6

# Graphs - Good

## Items Sold in First Quarter of 2002



# Graphs - Bad





# Graphs - Bad

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- Minor gridlines are unnecessary
- Font is too small
- Colors are illogical
- Title is missing
- Shading is distracting



# Images:

## Be sure to indicate scale.

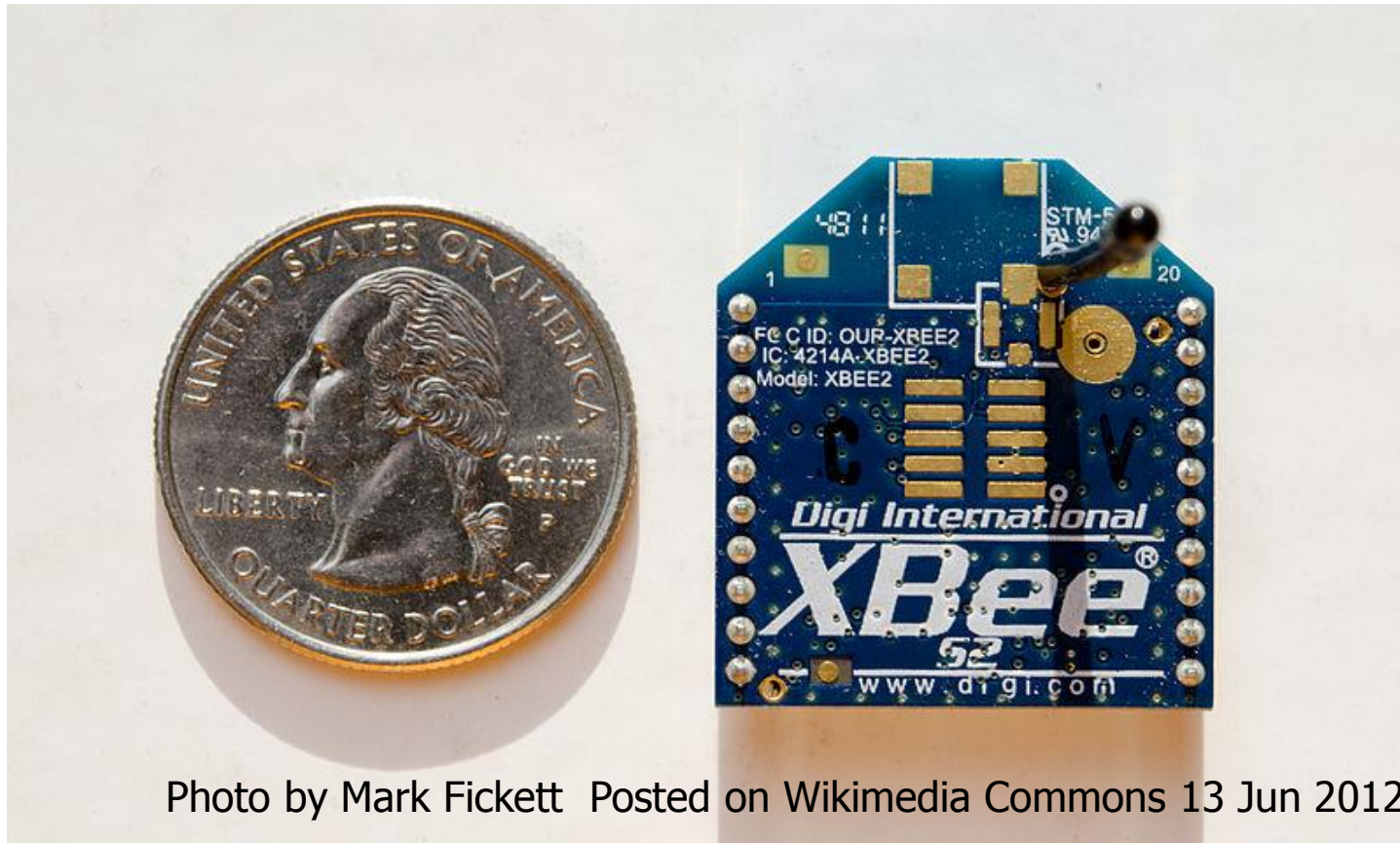


Photo by Mark Fickett Posted on Wikimedia Commons 13 Jun 2012



# Spelling and Grammar

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- Proof your slides for:
  - spelling mistakes
  - the use of of repeated words
  - grammatical errors you might have make
- If English is not your first language, please have someone else check your presentation!

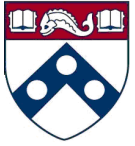


# Conclusion

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- Use an effective and strong closing
  - Your audience is likely to remember your last words
  
- Use a conclusion slide to:
  - Summarize the main points of your presentation
  - Suggest future avenues of research

# Final points for slide presentations

- Add Penn  or Penn Engineering logo
- Begin clearly; end clearly
- Number slides
- Include words that you have trouble pronouncing
- Include a guide showing where you are in the talk
- Have a backup plan (Handouts? Chalkboard?)
- Be prepared for questions (practice!)
  - Prepare answers
  - Prepare slides



# Acknowledgements

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- Slides were from
  - “Oral Presentation Guidelines” by Mary Westervelt
  - ["PowerPoint Tips"](#) from International Association of Science and Technology for Development



# Questions??

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- End your presentation with a simple question slide to:
  - Invite your audience to ask questions
  - Provide a visual aid during question period
  - Avoid ending a presentation abruptly