

# Design on a Dime – Setting Up a Video Lab

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## Today's Presentation

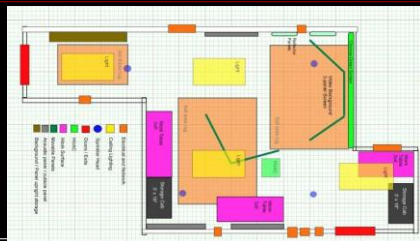
- Center for Teaching and Learning (CTL) Video Lab at SCTC
- Home-Brew Teleprompter
- Home-Brew Light Stand and Green Screen
- Home-Brew Background Lighting
- Teleprompter Script Macro
- Equipment Recommendations
- Software Recommendations
- Tips for Lighting
- Checklists for Recording

## CTL Video Lab

- Prior to Summer 2007 – No Facilities
- Cleared a Small Storage Room
- Low-Cost – “Proof of Concept”
- “Home Brew” equipment for sound panels, teleprompter, background stand, and background lights



## CTL Layout

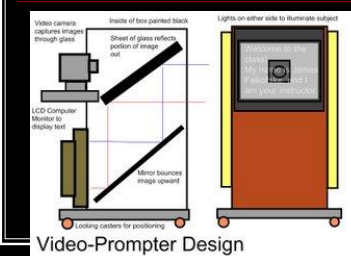


## Home Brew Teleprompter

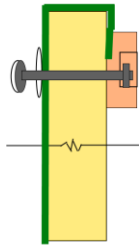
- “Periscope” design
- Adjustable-angle top glass to account for different heights of subjects
- \$100 in lumber, glass, mirror, hardware
- Teleprompter program is a Word Macro
  - Enlarges Font
  - Sets line-down speed
  - White font on black background



## Teleprompter Drawing



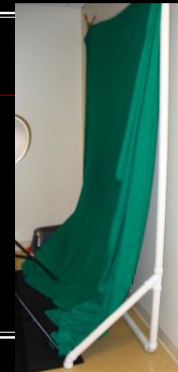
## Home-Brew Acoustical Panels



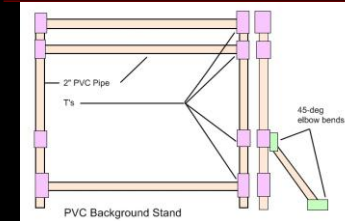
Fabric wrapped around insulation board  
 1/2 board (top and bottom) orange fabric and creates a point of attachment for hangers, plus creates a void to better trap bass (low frequency)  
 Bolt passes through fender washers, insulation board and 1/2 to secure insulation board to mount.  
 Hole is counter-sunk to keep bolt and nut from protruding in back surface.

## Home-Brew Background Stand

- 2" PVC Pipe Fittings
- 45-degree elbow bends for front "legs"



## Background Stand



## Home-Brew Background Lighting

- Shop Light
- Bolt "eye"
- Photo Lightstand



## Teleprompter Script Setup

```

Sub DownBit()
    ' Created by James Falkofski
    Dim PauseTime, Start, Finish, TotalTime
    Dim i, Max As Integer
    Dim i1, i2, i3, i4 As String
    Dim iTiming, iFontSize As Double

    i1 = InputBox("Enter number of Lines to Move", ...
    "Teleprompter Motion", 100)
    iMax = Cint(i1)

    i2 = InputBox("Enter Delay seconds between moves",
    "Movement Timing", 0.35)
    iTiming = CDBl(i2)

    i3 = InputBox("Enter the font size in points", "Font
    Size", 32)
    iFontSize = CDBl(i3)
    
```

```

With Selection.PageSetup
    .LineNumbering.Active = False
    .Orientation = wdOrientPortrait
    .TopMargin = InchesToPoints(0.5)
    .BottomMargin = InchesToPoints(0.5)
    .LeftMargin = InchesToPoints(0.5)
    .RightMargin = InchesToPoints(0.5)
    .Gutter = InchesToPoints(0)
    .HeaderDistance = InchesToPoints(0.5)
    .FooterDistance = InchesToPoints(0.5)
    .PageWidth = InchesToPoints(8.5)
    .PageHeight = InchesToPoints(11)
    .VerticalAlignment = wdAlignVerticalTop
    .TwoPagesOnOne = False
    .End Win

    ActiveDocument.Background.Fill.ForeColor.ObjectThemeColor = ...
    wdThemeColorText
    ActiveDocument.Background.Fill.ForeColor.TintAndShade = 0#
    ActiveDocument.Background.Fill.Visible = msoTrue
    ActiveDocument.Background.Fill.Solid

    Selection.WholeStory
    Selection.Font.Size = iFontSize
    Selection.HomeKey Unit=wdStory
    ActiveWindow.ActivePane.View.Zoom.PageFit = wdPageFitBestFit
    
```

## Heart of the Teleprompter Script

```
For i = 1 To iMax
  PauseTime = fTiming ' Set duration.
  Start = Timer ' Set start time.
  Do While Timer < Start + PauseTime
    DoEvents ' Yield to other processes.
  Loop
  ActiveWindow.ActivePane.SmallScroll Down:=1
Next i

End Sub
```

## Equipment Recommendations

- Video camera with:
  - Auxiliary Microphone Input
  - Firewire / DV output
  - Composite Video Output (for Monitor / Focus)
- External Microphone (lapel or boundary)
- Fluorescent photographic studio lights (keeps heat / amperage down)

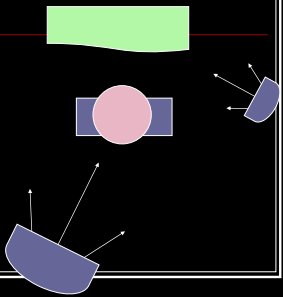
## Software Recommendations

- FREE – Microsoft Movie Maker
- Low-Cost – Pinnacle Studio
- Pro – Adobe Premiere Pro
  
- Software pricing for academic titles:
  - [www.academicssuperstore.com](http://www.academicssuperstore.com)
  - [www.campustech.com](http://www.campustech.com)

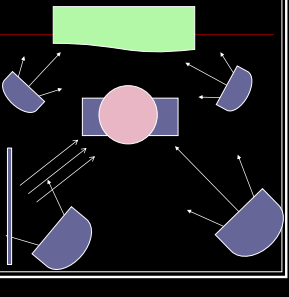
## Tips for Lighting

- Background – flood with soft, diffused light
  - Especially important for GREEN SCREEN effects
- Subject – Stronger light on one side
  - 3-D effect / shadowing
  - 45-degree arcs from front of subject
  - Light from slightly above head-height or higher

## 2 Light Setup – One Person

- Main Light: Front Umbrella or bounce-panel at slight angle
  - Background / separation light (hair halo) at opposite side of main light
- 

## 4 Light Setup – Green Screen

- Main Light
  - Bounce Panel
  - Two background lights
- 

## Checklists for Recording

- Script out everything in advance and practice
- Stream the video directly into PC at time of recording
- External microphone at subject position
- Don't be afraid to stop and re-start (new take)
- Outfit color to contrast with background
- Avoid flashy jewelry // check the "neckline" of outfits
- If "Greenscreen" – make sure that background is very evenly lit --- and do test shoot of video before recording subject
- Continuity – hair, jewelry, outfit, lighting, make-up

## Make Sure to Transcript or Caption

- Section 508 of the 1998 Rehabilitation Act (Americans with Disabilities Act)
  - requires that electronic information be accessible to people with disabilities in a format that produces the same quality and depth.
    - **Captioning** of still graphics (photos, graphs, charts, diagrams)
    - **Full-Transcripts** of audio and video content
    - **Color-blind** content (color is not used to indicate information or categorization; i.e. requirements are in **red**)
    - **Browser Independence** (avoiding scripting languages, browser dependent features)

## Materials will be available

- [www.PedagogyOnline.com](http://www.PedagogyOnline.com)
- [TechnologyBites.blogspot.com](http://TechnologyBites.blogspot.com)