

**MICHIGAN STATE**  

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**U N I V E R S I T Y**

**10/29:**

# Design Day and the Project Video

## The Capstone Experience

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Department of Computer Science and Engineering  
Michigan State University

Fall 2014



*From Students...  
...to Professionals*

# What's ahead?

(1 of 2)

- Week 10
  - ~~10/27: Camtasia Demo~~
  - 10/29: Design Day and the Project Video
- Week 11
  - 11/03: Intellectual Property
  - 11/05: Ethics and Professionalism
- Weeks 12, 13
  - 11/10, 11/12, 11/17, 11/19
  - Beta Presentations

Email legitimate conflicts by  
Wednesday.  
If you've already emailed me  
a conflict, email it again.



# What's ahead

(2 of 2)

- Week 14
  - 11/24: Project Video Status Reports
  - 11/26: Status Reports
- Week 15
  - 12/01: Project Videos
  - 12/03: Project Videos and All Deliverables
  - 12/04: Design Day Setup
  - 12/05: Design Day
- Week 16
  - 12/09: Project Videos
  - EB 2400, 3:00 p.m. – 5:00 p.m.



# Design Day Overview

- Engineering Building (2<sup>nd</sup> Time)
- Friday, December 5, 6:30am – 2:30pm
- Exhibits of Design Projects
  - From Entire College of Engineering
  - Open to the Public
  - Visitors Include
    - Faculty
    - Family and Friends
    - Corporate Sponsors
    - Middle and High School Students
- Dress is Business



# Design Day Activities

- 6:30 a.m. Setup and Breakfast
- 7:00 a.m. All-Hands Photo
- 7:30 a.m. - 11:45 a.m. Presentations to Judges
  - See [Schedule](#)
  - [Room 3405](#)
- 7:30 a.m. - 12:30 p.m. Team Exhibits
- 12:00 p.m. Free Lunch
- 12:30 p.m. Tear Down
- 1:15 p.m. Awards Ceremony
- 2:30 p.m. Debriefing Meeting
  - All-Hands
  - Families and Friends
  - Judges
  - Corporate Visitors





CSE Students Ready to Go at 7:00am

# Team Exhibit

- Table
- iMac
  - For Software
  - For Project Video
- Other Device(s)
  - MacBook Pro
  - iPhone/iPad
  - Android
- Poster
  - DD Booklet Page
  - Provided by Dr. D.





In today's fast-paced, ever-changing world, businesses must be able to stay ahead of the competition. Among other things, such agility requires the ability to hold impromptu meetings.

My Conference Room is a mobile app that enables GM employee groups to identify and book open conference rooms for "spur-of-the-moment" meetings.

Conference room availability is determined easily and quickly with a smartphone by scanning QR (quick response) codes located outside of each conference room.

Based on the QR code, users are automatically directed to a mobile website that shows the room number in a color-coded box that indicates the availability of the room.

If a room is available, users can book the room immediately by pressing the "Book Now" button.

If a room is booked, users can search for nearby available rooms based on the desired duration of their impromptu meeting and the capacity of the room.

My Conference Room displays a variety of information including the room capacity, the next booked appointment and various amenities associated with the room such as Wi-Fi, Smartboards, video conferencing and outdoor views.

CR and ASD.net are the underlying code for the mobile website. Conference room schedules are hosted on Microsoft Exchange Server 2013.



- Michigan State University  
Team Members (left to right)**
- Daniel Bachels**  
West Bloomfield, Michigan
  - Matthew Tamowsky Jr.**  
Macomb, Michigan
  - Thomas Smale**  
Grosse Pointe Farms, Michigan
  - Jeff Gurbach**  
Novi, Michigan
- GM  
Project Sponsors**
- Fred Killean**  
Detroit, Michigan
  - Shane McCutchen**  
Detroit, Michigan
  - Dan Rudman**  
Detroit, Michigan
  - Christian Star**  
Detroit, Michigan



# Families



Alumni



## Corporate Clients



Faculty



International Visitors



## The Media



Dean Leo Kempel

# Design Day Awards

- [Awards](#)
  - Auto-Owners Exposition Award
  - GM Praxis Award
  - TechSmith Screencast Award
  - Urban Science Sigma Award
- ~12 [Judges](#)
- Based On
  - Project Plan (Due When?)
  - Project Video
  - Design Day
    - Exposition
    - Presentation to Judges





Presenting to Judges



Team GM Wins Auto-Owners Exposition Award

# Project Video

- Tells Project Story
  - The “Problem”
  - Your “Solution”
    - Architecture
    - Some Technical Details
  - Software Demo
  - Acknowledgements
- 10-12 Minutes in Length
- Professional
- Lots of Work



# Project Video How To

(1 of 3)

- Story Board
  - Plan Video and Audio
  - Very Specific
- Capture Audio
  - Write Script
  - Record in Telecomm Sound Studio
- Capture Video
  - Screen Video or Shots
  - Photographs
  - Digital Video
  - (While Listening to Audio?)



# Project Video How To

(2 of 3)

- Edit
  - Video
  - Audio
  - Use
    - Camtasia
    - Other Software of Your Choice
- Produce
  - .mp4 (Required)
  - .mov (Desired)
  - .wmv (Optional)



# Project Video How To

(3 of 3)

## To Do...

- **Collect Assets**
  - **Audio**
    - Background Music (If Any)
    - Record Voiceover
  - **Video**
    - Camtasia
    - Digital Video (with Capstone Camera)
    - Digital Photographs
- **Import, Assemble and Edit Assets with Camtasia**
  - Put All Assets in One Project Folder
  - Use (At Least) Three Tracks
    - Video
    - Audio for Voiceover
    - Audio for Music
- **Produce**
  - Test Parts and Pieces in Advance
    - For Look and Feel
    - For Readability
  - Produce Entire Video
    - In Advance
    - Preview Entire Video Before Submitting



# Project Video Hints

(1 of 2)

- Look at Previous Videos
  - See [Archives](#)
  - Look at Previous Videos
- Voiceover
  - Try TeleCom Recording Studio ASAP
    - Figure Out
      - ❖ How to Sign Up
      - ❖ Where It Is
      - ❖ How To Use It
  - Record Mary Had a Little Lamb
  - Import into Camtasia
  - Audio Can Be Split and Moved
    - Record with Gaps of Silence
    - If Mistake, Start Over at Previous Gap
- Background Music
  - Make Sure Voiceover Much Louder
  - Test in Room Settings (Like 1225 EB)
  - Always Err on Side of Too Soft Music
  - (Always a Problem with One Video)



# Project Video Hints

(2 of 2)

- Reading App Text
  - Often a Problem
  - Use Very High Resolution and Pan/Zoom Feature of Camtasia
  - Test In Advance
  - In Room Setting (Like 2250 EB)
- Rendering
  - Try Samples
  - In Advance
  - Takes a Long Time
  - Do NOT Press Render Button One Hour Before Due
- Due
  - By 2pm on Monday, December 1
  - Via USB Stick to Dr. D. in Office
  - Posted for Judges
- Posted Immediately for Judges



# Project Videos

- See [Archives](#)
- Examples
  - TechSmith  
[Screen Capture Multi-Image Output Accessory for Snagit](#) 
  - Medtronic  
[Mobile Health Management System](#) 
  - Ford  
[Ford Conference Room](#) 

