



## September 2<sup>nd</sup>, 2010 - Meeting agenda

1. New ACM@UNK mission, website, forums, Facebook group
2. Get active in the forums. Start a new thread in Introductions listing any contact info you're comfortable giving (Facebook, e-mail, WoW avatar name, etc); Introduction forum is hidden from guests
3. Interested in becoming an officer? Contact Jason!
4. Aesthetic updates to OTOL 110 and 117 labs
5. New Media Lab and Kelly Grant funding available for all students and faculty
  - a. Kelly Grant funds allow for a budget of just over \$1000 for materials relating to **your** new projects, so find something you want to do and ask about getting some cash to make it happen!
6. Want to join a group to collaborate on some projects? We will start with three groups, if you think there should be more see if you can find more students who would support it and talk to Jason
  - a. Multi-touch Interaction Group, Robotics Group, Interactive and Generative Art Group
  - b. Ideally each group will ideally have a faculty sponsor who can act as mentor for the group
7. Tell your friends, get other students involved! The only requirement is interest in learning, the area of study is irrelevant; graphic designers, physicists, multimedia students and anyone else are all welcome!

## What is ACM@UNK and why should I care?

ACM@UNK is a student-driven organization designed to give students a way to connect, collaborate and get excited about awesome projects and research opportunities. Using funding made by possible by a recent grant for the CSIS department there is now a mobile New Media Lab available to all students and faculty who want to use the hardware for projects. This lab contains several flavors of Arduinos (open-source embedded computing platform), electronics parts, tool kits, Wii remotes, webcams, a projector, a few laptops equipped with various IDEs and computer vision software and more!

The most important thing to remember is that ACM@UNK is a **student-driven** organization and it only exists so long as there are students tinkering, making, playing, learning and enjoying a fresh and creative look at modern computing. Don't wait for faculty or officers to tell you what to do; we want to help you do *anything* you want to do! The following page contains a list of various example project ideas to get you started and thinking about the possibilities. You don't have to use the list; it's just there to get the creative juices flowing. Spend some time and choose one or several of the projects that you think would be fun to try then talk to an officer or faculty member about your idea and **go for it!** Use the ACM@UNK forums to find other students who might want to work with you on your project or ideas (start a new thread, post on the ACM@UNK Facebook wall, ask your friends, whatever)

## List of potential project ideas

- Create a multi-touch program using the language of your choice. Officers can show you how to set up the table (or an MT Mini) and what you need to learn to do this.
  - Design and develop a cool futuristic interface
  - Create a new kind of live music performance device for the table
    - Look at JazzMutant's Lemur and the open-source Argos interface toolkit at <http://argos.dimitridiakopoulos.com/media/> for inspiration
  - Try to embed fiduciary markers (2D barcodes) onto familiar objects and get the table to sense them and react to them (put down a coffee mug, have a menu pop up to let you order more)
- Use Processing to create a generative art program
  - Visit <http://www.processing.org> and download the IDE to get started. Check out a book from the library in OTOL 117 to learn more and be sure to check out all the examples (File > Examples in the Processing IDE) to find awesome programs and tinker with them.
- Create an RFID-enabled electronic door lock (we can order you an electronic deadbolt lock) to replace the janky locks on the 117 and 110 lab doors. Arduino, RFID hardware, tags and even wireless sensors are already available in the New Media Lab
- Create a simple robot using the LEGO Mindstorms or VEX kits that can draw on surfaces. You can even try to make your own bot from scratch using help from the Robotics Group
- Check out one of the Arduino Inventor's Kits (we have three in the New Media Lab) and learn about some basic electronics
- Learn how to use a Wii remote (we have three in the New Media Lab) as a Bluetooth device to control a video game or program
  - Getting the Wii remote to work with a computer can be tricky, but once connected you can use a program like GlovePIE ( <http://glovepie.org/poiuytrewq.php> ) to translate the signals into something useful like keyboard commands
- Build your own MT Mini using a cardboard box, a picture frame, a piece of paper and a webcam. Instructions and documentation can be found on the ACM@UNK website, and you can also take a look at one of the already-made MT Minis and ask an officer about how they work.
- Create a circuit using the LilyPad Arduino kit and accompanying boards and embed it into an article of clothing using the conductive fabric and conductive thread instead of wires.
  - The LilyPad Arduino is built for wearable computing applications and comes with small boards with components like motors, LEDs, light sensors, temperature sensors and more.
  - Check out <http://www.instructables.com/technology/soft-circuits/> and <http://www.instructables.com/id/Conductive-Fabric/>
- Find a project that interests you on a website like <http://www.instructables.com> , <http://www.hackaday.com> , <http://www.makezine.com> and figure out what you need to make it happen. Remember this club is **student-driven** and there is plenty of funding to help you create something cool!
- Offer to help another ACM@UNK member with their project or join one of the ACM@UNK groups