

ME218c Gems of Wisdom

Team Weiner Meister's top 10
Spring, 2008



1. **You are not a robot** - please take time to exercise, sleep, and stay in touch with your family and friends! We made a commitment to each other at the start of the quarter not to let ME218 dominate our schedules. There's no time like the present to enjoy life!
2. **Pumpkin time** - we realize that spending long and bleary nights debugging in the SPIDDLE can suck the soul right out of you. We agreed at the beginning of the quarter not to stay in the lab past midnight unless we had a good reason to, and we didn't find one of these "good reasons" all quarter.
3. **Don't punish yourself** - we decided to use an E128-heavy design, rather than relying on PICs to run our state machine. Every day we appreciated how helpful printf and term are for understanding what is going on in your code.
4. **When in doubt, take the simpler path** - don't choose a more complicated design just because you think it will be a good challenge or an additional learning experience. You will learn more if you get some sleep and do less. On the other hand, if you're truly excited about putting some energy into aesthetics or fun extras, go for it!
5. **Use the c drive** - for the entire year, we were compiling our code on the network drive. As we had accumulated 6k lines of code, each compile took a few minutes, which compounded the frustration of debugging. Try moving all your files to the local drive (don't forget to back up daily) and enjoy the difference!
6. **Lights are not visible outside** - try using servos for UI indicators. Even super-bright LED's and incandescent bulbs are barely visible in the afternoon sun.

7. **More power** - always give yourself the option of running your motors at 15v. We would have liked to power up our propellers once we tested them at 7v, and you'd be surprised at how much juice the Maxon motors can take.
8. **Test, test, test** - writing test harnesses and using them along the way is essential. Make sure every function and subsystem works on its own before you go slapping them together and you'll save yourself from a lot of painful second-guessing.
9. **It takes time to ramp up** - don't underestimate the time it takes to build familiarity with new technology. Our first week felt unproductive because we didn't yet speak the language of xbee's, PICs, and ibuttons. Be patient with yourself and take the time to skim through documentation and just play around.
10. **Don't be a slave to the project spec** - don't hold yourself to every single requirement as stated exactly in the 4-page project spec. Bend the rules, question authority, and follow your heart. It's usually better to ask forgiveness than permission!

- from Adam, Peter, and Ted

