

The Engineer's Dilemma

A lot of guys, and here I refer to the males of the human species, like to fix things and make stuff, usually to help solve a puzzle or a problem. As children we started out with wooden blocks, and then moved on to hammers and nails, and even more elaborate tools. Frequently, we spend considerable effort thinking up a new problem just so we'll have a reason to work on it. Some of the guys realize as they're growing up that they have no talent for solving problems or making stuff and become accountants or car salesmen. The rest of us become engineers, carpenters, steelworkers and so on. I think John Gray, in *Men are from Mars, Women are from Venus*, was generalizing, but in the main was correct, when he said that men are the fixers, and women are the feelers. A man's house collapses, he wants to know what broke it and start rebuilding, the woman asks how he feels about it. A woman cries, the man wants to know what he can do to fix whatever is causing that. If there are any women engineers reading this, hey, you're probably just one of the guys!

My father was a physicist and I don't recall any workmen coming to the house when I was growing up. If something broke, he fixed it. At his side, I learned how to rewire light sockets, fix plumbing leaks and replace broken windows. I had building blocks, Lego®s, and erector sets that I used to explore the universe. I went on to become a programmer, which is a kind of problem-solving. I also make my own furniture, make light fixtures from scratch and work with electronics. I love to make stuff. And when my wife is in a bad mood, my first inclination is to find out how to fix it. While I have no collection of letters after my name, I consider myself an engineer – a generic term for those of us who like nothing better, literally, than to bang about in whatever workshop we may have, be it a ham shack, a garage with various implements of destruction and construction, or even a greenhouse where seeds are being coaxed into life.

Many engineers have families. Ultimately, family members and acquaintances realize that having access to an engineer is pretty cool! The washing machine doesn't start for some reason – who do you call? Oh, the little plastic thingy on the lid that hits the safety interlock switch is broken off. I'll glue on a little piece of wood... All fixed. Honey, it would be really nice if I had a shelf here... My iPod doesn't work... and so it goes. If you work in an office, you're called when the copier jams.

As creative doers, engineers always have a list pet projects they're working on. Usually they can't explain what project 'X' is good for, or why they need to spend money for yet another special tool to work on it. When it's done and the engineer proudly shows it off to family and friends, there are blank stares and the occasional "That's nice." Well, at least I had fun working on it and I learned how to floozle a fizzbang to boot. And then you overhear the kids: "Hey, doesn't your dad have a bunch of tools? Maybe he knows how to fix my..."

The engineer is hard-wired to make and fix stuff, and it's connected to the pleasure centers of the brain. He can not say no to a problem and his job-jar is overflowing. And yet, late at night, when all is quiet, he retreats to his domain for a few hours to tweak this and adjust that, assemble a little more of the gizmo, debug some code, put on

another coat of oil, whatever, because for him that's fun. He'd pay to have a job where he could do this full-time.

So, what's the dilemma?

The engineer usually has a long list of personal projects to work on, enough for several lifetimes. (If only he had a REAL workshop, and a host of minions, à la Edison, or Kamen...) He is fully engaged in the current project, tools and supplies are laid out on the workbench and other in-progress projects have been stacked on the shelf. And then...

"Honey, I know you're busy but it would be really neat if you could make me a..." Fill in the blank, depending on the type of engineer you are. We're all familiar with the stages of grief: denial, anger, bargaining, depression, and finally acceptance. I'll call this the stages of Engineer's Honey-Do. It goes like this:

Groaning: Oh no! Not another unworkable idea!

Complaining: There's too much work to do around here. When am I ever going to get to work on MY projects? I NEVER have any time for them.

Grudging recognition: Well, let me think about it just a little on the way to work.

Runaway thoughts: The engineer can't think about anything else all day and by the time he gets home he has already designed and built it in his head.

Obsession: The engineer could say "No," or "Maybe later." Instead, with a wistful sigh he boxes the current project, pops it onto the stack of others, and clears the workbench. He refills the lamps with midnight oil and starts a fresh pot of coffee.

Delivery: Sometimes by morning, usually a few days later, sometimes a long time later, due to higher priority interruptions, the results are delivered. Sometimes there are a few adjustments, perhaps the user interface needs to be refined for a non-engineer. And finally it's, "Ooooh! Thanks, honey."

So, while this interruption is not the ideal project he really wanted to work on, he just can't resist a new problem! And this one has a built-in, appreciative audience.

Sound familiar?

While pondering on this, I wondered about the great inventors and builders throughout history. We are familiar with their great public works and patents, but what about their unpublished one-offs and hacks? What kind of gadgets did Thomas Edison make for his wife. Did Frank Lloyd Wright ever build a treehouse for his children? Did Mrs. Faraday ever ask her husband for a better reading lamp?

Jürgen G. Schmidt
May 2010, San Antonio, TX