My name is Jacob and my major is robotics engineering at the Polytechnic campus. I consider myself to be very interested in history, especially political and religious history, but I have never thought about learning the history of engineering. It seems like it could be an interesting topic to study. I imagine there are many strange anecdotes, and I am curious to see how the methods of engineering have stayed the same or changed over the years. It’s hard to say what gets me excited about engineering, but one of the aspects of it that I like most is thoroughly investigating a specific problem and finding an optimized solution. I enjoy picking apart the minutia of a situation, weighing the different variables to understand how they interact, and ultimately using my understanding of the problem to make an informed decision.

I noticed that several points appeared in multiple readings such as the importance of taking a step back from yourself and the usefulness of working hands-on in a lab. I particularly enjoyed the readings about James Dyson. While those articles focused somewhat more on his entrepreneurship than his engineering work, I felt like I could relate to his views. Dyson’s preference for inexperienced engineers because they are “unsullied” coincides with Blanco’s disappointing breakthrough from *Up the Infinite Corridor*. Blanco was disgusted with himself when he finally realized the key to the sheet music page-turner was the difference between pealing and ripping. He felt like he should have seen it sooner, and the author implies that the only reason he was able to make the discovery at all was because he looked at the problem without his ego. It seems like James Dyson’s inexperienced engineers would benefit from the lack of an ego and preconceptions which hindered Blanco, an experienced engineer. I agree, that our (often unconscious) ideas can hinder our thinking and prevent us from considering valid ideas. I think that Blanco’s story shows why thorough understanding of the problem is so important. He needed to investigate more thoroughly how a human finger turns the page before beginning his work to find a solution.

Jeshua, I was interested by how you say you don’t enjoy refining a prototype as you find it to be somewhat tedious and less satisfying than seeing the original proof of concept work. I can definitely relate to this feeling, as taking the extra steps to make something look and work nice often takes as much or more time than simply proving the main functional goal of whatever you are building. That being said, I also enjoy perfecting a design and seeking the optimum configuration. It feels good to be able to say that what you have built is the best solution to the specific problem and to be able to justify the different decisions for how things were done.

Jordan, I also liked the story of the computer programmers rewriting the cash register code. It seems a little unlikely to me that the source code for the register system was available on the same computer that ran it, but maybe that’s how things were back then. Either way, like you said, it’s a great illustration for how engineers tend to be perfectionists, wanting to make something better just because they can. I think that attention to detail is important, though, and is often overlooked as an important aspect of engineering. Engineers analyze the details of a problem and draw logical conclusions from their thorough understanding. Without details, we are just designers.

Matt, I liked how you talked about history repeating itself. I’ve heard that saying before, of course, but I’ve never thought about how it applies to engineering. Of course, I’ve never thought about the history of engineering before either, though. I wonder if it does hold true in this field, and I’ll be interested to see if we learn any examples of that happening. It’s cool that you want to work in a multidisciplinary environment like the Idea Factory. I had never heard of it before, and had no idea that MIT had a group responsible for all of those different developments.

Scott, the Idea Factory articles also piqued my interest. I had never heard of it before, and had no idea that MIT had a group responsible for all of those different developments. I also liked the story of the computer programmers rewriting the cash register code. It seems a little unlikely to me that the source code for the register system was available on the same computer that ran it, but maybe that’s how things were back then. Regardless, it is a funny anecdote about engineers making something better just because they want to. The description of how Blanco’s ego, along with that everyone else at MIT, was shown through his clothes was my favorite part.

Ian, I’m glad you mentioned the significance of solid state devices in allowing cell phones. It’s pretty cool how he technology is both the same and different as that of traditional computers. Due to their size constraints, smart phones cannot have any moving parts. Thus, their CPUs must stay cool without fans. They must have nonvolatile storage that doesn’t require a moving hard disk. I would be interested in learning the origin of these technologies and what spurred their development. For example, solid state drives are common in computers and smart phones now, but if we didn’t have smart phones, would solid state drives still be as common and affordable in computers.

Robert, I agree that engineering is an iterative process. However, I think that the Dyson article did not stress the process that James went through in order to develop his vacuum technology. I would think that besides building a number of prototypes, he also must have researched fluids and how fans work. He probably modeled a vacuum’s suction system somehow after researching the physics behind the process. Then, he probably developed the best cyclone system for the size and weight constraints of his vacuum. I think the analytical processes of engineering that allow engineers to save times and avoid having to make so many mistakes with many iterations should be given more attention.