

Career Sheet: Systems Engineering Manager



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After starting as a Systems Engineer at Texas Instruments I am now leading a team of System Engineers.



OVERVIEW OF THE JOB

I am the Systems Engineering Manager of one of our Product Lines at TI. In this role, I am leading a team of System Engineers, who are responsible for product definition and as well as our long-term strategy related to future products and required technological advancements. This is an interdisciplinary function, closely working with our development team which implements the product definition as well as keeping a close connection to our Sales teams and customers.



WHAT INSPIRED YOU

I have always been interested in STEM, but even more in exploring solutions to all kinds of different problems. My role at TI enables me to be a part of solutions that can change the way we live, work and move, and thus have an impact in many different areas of technology and life.



TYPICAL WORKING DAY

My typical working day consists of a mix of technical discussions around running projects and interactions with customers and sales around products in development or in the concepts stage to identify how our products can best solve the problems our customers face in their applications. Moreover, I am also involved in discussions around our long-term strategy, including specific products as well as technologies we need to develop these.



STUDY & CAREER PATH

After finishing school, I started studying biomedical engineering, including electrical and software engineering classes, which I really enjoyed. During my bachelor's, I decided to study abroad which helped me grow a lot, specifically with regards to my personality and personal skills. I continued with a double degree master's in the same field of expertise. I got into TI because I was open to looking for opportunities in a very broad field, where I could best leverage my technical and moreover personal skills. Most of my colleagues followed very different career paths in different industries, mainly because of the interdisciplinary study path we've chosen.



KEY SKILLS

The job of the systems engineering manager requires a couple of very different skills to work most effectively. I'd split them into more technical and more people related skills.

On the technical side, there are things like analytical reasoning which helps to make the best judgement out of data presented, this can be from customers or also from our development teams. In the end, a big part of the job is spent on deciding one or another direction. There is also a certain portion of Market Research involved in understanding market trends that we want to address and support with the next-generation products. Overall, a solid technical understanding of the product and the system it's going to be used in is the foundation of the job.

As technology advances, some requirements and product concepts can change throughout the definition or even within the project execution. Maintaining a high degree of Flexibility and keeping Adaptability is important to not cling to ideas or projects which need to change to be successful.

Personal key skills that I often use are more related to leading a team and engaging with other individuals (team members, peers or customers) most effectively. Active Listening plays a big role in gathering information, might be from the team members about the actual status of a project or understanding the key challenges of our customers.

Delegating Tasks is important to make sure to leverage the experience of the team members as well as give growth opportunities, while at the same time opening up my own bandwidth for tasks that I need to do myself.

Time Management is closely connected to the delegation of tasks, however, it is also an important skill for the whole team to make sure we spend time on the right things and prioritize according to our strategy.

In the manager position, many of the tasks are actually about Leadership and People Management, on the one side to lead and motivate the team, on the other side to help each of the team members to grow in their professional path.

Negotiation is a key skill in private and professional life. A lot of times it's about persuading others of own ideas or negotiating the preferred solution for a problem, as most of the time it's not black and

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white with one way only. Keeping a balance of giving and taking while fighting for what really matters is crucial to success.



CAREER PROSPECT

Since I started working I have mostly built technical expertise in the semiconductor business and some electronic/electrical engineering. This could open up opportunities either in the same or related industries. The personal skills, however, might broaden up and even offer opportunities across the technology sector.



CHALLENGES

The biggest challenge for me is to make decisions based on the limited data which is available and then balance between sticking to a plan to decide over and over again and adjusting the strategy based on newly available data. Often it's about judging whether the information presented is sufficient to make a decision and if so take a side even though this might have an impact on other projects or decisions which have been previously taken. It's sometimes hard to decide between sticking to the plan and adapting the plan as a thin line between continuity/ stability and innovation.



YOUR ADVICE TO STUDENTS

Focus on your key strengths and key motivating factors when pursuing your career and your learning paths. Be open as you might not know from the beginning where you'd end up. Every experience can be an asset in the future and learning opens up your view and brings new perspectives. Do not shy away from change as being out of your comfort zone many times enables the biggest opportunities for growth (personal and professional).



YOUR ADVICE TO TEACHERS AND PARENTS

I personally believe that role models play a big role in the development of each of us. Those can be friends, colleagues, parents, teachers or well-known individuals. Display your key strengths and also share your learnings about how you ended up where you are now. Listen closely to questions and concerns and support others where possible. We can call help each other to grow using our empathy and being transparent about the personal path.

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