Roles of Engineers in Cyber

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# Details

# **Roles of Electrical Engineers**

# Electrical engineers play an important role when it comes to helping to manage cyber security risks. Engineers help by creating the systems that go in place to help to reduce the cyber risks. Electrical engineers need to have cyber security skills to be able to build more secure and overall a better infrastructure that will help to keep hackers out, since everyone is connected to the internet nowadays, it is harder to prevent cyber-attacks.[[1]](#footnote-1) If the electrical engineers understand the motivations and the methods behind the cyber-attacks, they can do a lot more to build more reliable and vigorous devices that would make it harder for people to hack. While electrical engineers know how to build different types of infrastructure, engineers need to understand how cyber attacks happen and the motives behind most cyber attacks. Therefore, if engineers understand the motives behind cyber attacks the engineers would then be able to build stronger infrastructure that is harder to get into, therefore reducing the cyber risks.[[2]](#footnote-2)

**Roles of Hardware and Design Engineers**

 Cyber attacks are more complex than what they used to be. Cybercrime has moved to attacking hardware. This occurs because hackers are thinking about money; the hackers always make some profit from their attacks.[[3]](#footnote-3) Hardware and design engineers are tasked with creating and designing components that are implemented into computers and networks. When drafting their creations engineers need to look at their products from a cyber attackers’ perspective to find the flaws within their products and fix them. When hardware and design engineers understand cybercrime, they will be able to think proactively about they products that are being put out and how they should be used. Usually the product that the engineers come up with will work, but is not always implemented correctly, therefore looking at the products from a cybercrime perspective will help to ensure that they products are the best that they can be and they are used in the most efficient ways possible. [[4]](#footnote-4) Overall, engineers understanding cybercrime helps to improve the products that are put out and help to reduce the cyber risks.

# References

Full Page Reload. (n.d.). Retrieved from https://spectrum.ieee.org/view-from-the-valley/computing/embedded-systems/why-hardware-engineers-have-to-think-like-cybercriminals-and-why-engineers-are-easy-to-fool

Why Engineers Need Cyber Security Skills. (2017, September 20). Retrieved from https://careersincybersecurity.com/engineers-need-cyber-security-skills/

1. Cybersecurity [↑](#footnote-ref-1)
2. Cybersecurity [↑](#footnote-ref-2)
3. IEEE [↑](#footnote-ref-3)
4. IEEE [↑](#footnote-ref-4)