



Next Engineers: Engineering Academy Unit 5 Student Reflection

STUDENT REFLECTION

1. Answer the following question on your own in your *Academy journal*. You can refer back to your copies of the *Engineering Design Process* and *Engineering Habits of Mind* handouts you received in Unit 1 if you need to. You will be given about **20 minutes** to answer these questions.
 - a. How has your **perception** of yourself as a future engineer changed since starting the Academy?
 - b. Describe one way in which you think you have **grown and developed** in your ability to practice any of the engineering habits of mind.
 - c. What did you find **most difficult** about this design challenge? How did you respond to these difficulties? What could you do to keep improving in future?
 - d. Describe **at least ONE** thing you learned from each member of your design challenge team. How did this make you feel about the project and that teammate?
 - e. Describe your **own contribution** to your team's success. What do you think your most significant or important contribution was? What do you think you could or should do differently to contribute even more meaningfully to the next team in which you work?
2. Now get into your design challenge team and discuss the following questions. Try and take notes of any helpful points or insights in your *Academy journal*. You will have about **25 minutes**.
 - a. Share and discuss with each other your responses to questions **d** and **e** above.
 - b. Describe times during this challenge when you think members of the team practiced each of the engineering habits of mind.
 - c. Thinking about the challenge you have just completed, what would you like to **change** about how you worked together?
 - i. How could your team work more effectively and efficiently?
 - ii. How could you improve your communication?
 - iii. How could you improve your planning?
 - iv. How could you improve how you delegated and assigned tasks?
 - d. What were the most important lessons you learned about **managing a project, including managing people, time, and resources**?
 - e. What were the most important lessons you learned about **creating and managing a budget**?



ACADEMY JOURNAL

While doing this reflection you are strongly encouraged to write your thoughts and insights down in your Academy journal. Having to express your thoughts in writing helps you to slow down, focus your attention and think more deeply. It helps make your thinking more reasoned and deliberate and less reactive.

As the philosopher Mortimer Adler said, "the person who says he knows what he thinks but cannot express it usually does not know what he thinks."



- f. If you could do this challenge again, what would you like to change about the solution that you developed?
 - i. If you had more time and/or resources, what would you like to try?
 - ii. What would you change about how you developed and tested your functional prototype?
 - iii. Is there another completely different approach or solution you would like to try?

