

<b>CHAPTER 11</b>	<b>Launch Lab: You, Robot?</b> <b>Answer Key</b>	<b>BLM 11.O.1A</b>
<b>ANSWER KEY</b>		

### Answers to Analysis Questions

- The following table lists the senses that are impaired and how each impairment affects the ability to process sensory information.

<b>Procedure step</b>	<b>Senses impaired</b>	<b>Effects of impairment on integrating and processing sensory information</b>
Step 3	no senses impaired	serves as the control test and provides baseline data
Step 4	sight and hearing	subject is now not able to receive auditory information from partner about task, and cannot see if task is being done accurately
Step 5	touch and pressure	now subject can receive visual and audio input, but cannot receive sensory input from touch and pressure receptors in the skin
Step 6	touch, pressure, and spatial	processing of sensory information is impaired because the extension of the fingers makes it difficult for the brain to recognize where these structures are in space
Step 7	touch, pressure, spatial, and different muscle receptors	sensory information is now being received about a different task – using pliers rather than fingers

- The following chart describes the effect on the ability to perform a simple motor output task.

<b>Procedure step</b>	<b>Senses impaired</b>	<b>Effects of impairment on ability to perform a simple motor output task</b>
Step 3	no senses impaired	serves as the control test and provides baseline data
Step 4	sight and hearing	motor output not affected greatly because the task is learned already, and not much visual or auditory information is required
Step 5	touch and pressure	motor output is affected because of the lack of sensory input from touch and pressure receptors in the skin; it would take time for the nervous system to adapt to this impairment
Step 6	touch, pressure, and spatial	motor output is affected; the extension of the fingers makes it difficult for the brain to recognize where these structures are in space; it would take time for the nervous system to adapt to this impairment
Step 7	touch, pressure, spatial, and different muscle receptors	motor output is affected; using the pliers would require retraining the nervous system and the muscle system – this is a completely different task than that done using fingers

- Your impression of the nervous system's role will depend on the degree of success or failure that you had in completing the task.