

# WATERLOO | CO-OPERATIVE EDUCATION

## Student Performance Evaluation

Zeir-Wanklyn, Lucas Robert  
20466595  
Fall 2014  
2B Nanotechnology Engineering  
National Research Council Canada

**Job Title:** NINT Hybrid Nanoscale Electronics Program

**Job Description:** Job Title: Co-op Student - NINT Hybrid Nanoscale Electronics program Description: Duties include circuit design with molecular electronic junctions and soldering of circuit boards. Nanofabrication of molecular junctions using a newly devised SIM-card format. Testing and validation of SIM-card molecular junction methods and jigs, and testing of their use in molecular junction audio circuitry. The production of several prototype devices incorporating circuit boards with SIM-card holders using existing circuit designs, with opportunity for refining of the circuit to optimize performance. The SIM-card format will incorporate a changeable molecular junction chip such that new molecular junctions can be systematically substituted for testing and to alter the distortion that is produced by the circuit. Ultimately the prototype devices will be used for industry evaluation of audio soft-clipping circuits (guitar gain compression devices) that utilize molecular electronic junctions for the first time (this application is subject to a provisional patent filed in AUG 2013, and data generated during this project may be used for the utility patent application).

**1. Interest in Work.** The degree to which the student pursues goals with commitment and takes pride in accomplishments.

<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input checked="" type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Shows little enthusiasm for assigned work, infrequently requests additional tasks</li> </ul>		<ul style="list-style-type: none"> <li>Enthusiastic about their assignments/work, agreeable to new responsibilities, asks for new tasks</li> </ul>			<ul style="list-style-type: none"> <li>Displays enthusiasm for work that is beyond their job requirements; proactively seeks new tasks and responsibilities</li> </ul>		

**2. Ability to Learn.** The extent to which the student becomes proficient with job duties and work processes.

<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Sometimes slow to become proficient at new tasks or work processes</li> </ul>		<ul style="list-style-type: none"> <li>Quick to become proficient at new tasks</li> </ul>			<ul style="list-style-type: none"> <li>Exceeds expectations in the complexity and difficulty of work they are able to successfully complete</li> </ul>		

**3. Quality of Work.** The ability of the student to set high standards for own personal performance; strive for quality work; put forth extra effort to ensure quality work.

<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Work does not meet expectations, has more than the expected number of errors</li> </ul>		<ul style="list-style-type: none"> <li>Work is usually very thorough and well done, few errors</li> </ul>			<ul style="list-style-type: none"> <li>Work is always very thorough and of excellent quality, few if any errors</li> </ul>		

**4. Quantity of Work.** The volume of work produced by the student, along with his or her speed and consistency of output.

<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input checked="" type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Does not always complete work within time limits</li> </ul>		<ul style="list-style-type: none"> <li>Completes the majority of work within specified deadlines</li> </ul>			<ul style="list-style-type: none"> <li>Consistently completes work ahead of schedule; seeks additional tasks</li> </ul>		

**5. Problem Solving.** The student's demonstrated ability to analyze problems or procedures, evaluate alternatives, and select the best course of action.

<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance		Good Performance			Superior Performance		

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>Can make routine decisions but needs guidance and checking</li> </ul> | <ul style="list-style-type: none"> <li>Can be relied upon to make good decisions, requires limited guidance</li> </ul> | <ul style="list-style-type: none"> <li>Independently manages complex tasks and makes good decisions for work without guidance</li> </ul> |
|--|--|--|

**6. Teamwork.** The degree to which the student works well in a team setting.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 Good Performance	<input checked="" type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Sometimes uncooperative; or experiences difficulty relating to others</li> </ul>	<ul style="list-style-type: none"> <li>Frequently cooperative, good team worker</li> </ul>	<ul style="list-style-type: none"> <li>Consistently cooperative, proactively seeks to improve working relationships</li> </ul>

**7. Dependability.** The manner in which the student conducts his or herself in the working environment.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5 Good Performance	<input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Displays an inconsistent work ethic and does not always report to work on time or has some attendance issues</li> </ul>	<ul style="list-style-type: none"> <li>Displays a strong work ethic and is present at work and meetings in a reliable and timely manner</li> </ul>	<ul style="list-style-type: none"> <li>Displays an excellent work ethic and volunteers to adapt personal schedule to meet work demands</li> </ul>

**8. Response to Supervision.** The manner in which the student responds to direction and constructive criticism.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5 Good Performance	<input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Sometimes disregards direction and feedback from supervisor</li> </ul>	<ul style="list-style-type: none"> <li>Integrates feedback from supervisor into their work to improve productivity &amp; efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Takes the initiative to follow through on all feedback from supervisor and to continuously improve upon their daily tasks and approach to work</li> </ul>

**9. Reflection.** The student's demonstrated ability to learn and adapt from previous experience.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input checked="" type="radio"/> 4 <input type="radio"/> 5 Good Performance	<input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Has to be told many times before they modify their behaviour or approach to new work based on errors in previous performance</li> </ul>	<ul style="list-style-type: none"> <li>Occasionally needs reminder to modify their behaviour or approach to new work based on errors in previous performance</li> </ul>	<ul style="list-style-type: none"> <li>Independently recognizes the errors in previous performance and proactively modifies their behaviour and approach to new work</li> </ul>

**10. Resourcefulness.** The student's demonstrated ability to develop innovative solutions and display flexibility in unique or demanding circumstances.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 Good Performance	<input checked="" type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Unsure how to approach new or stressful situations; has difficulty adjusting to changing priorities and circumstances</li> </ul>	<ul style="list-style-type: none"> <li>Responds appropriately to new or stressful situations; can adjust to changing priorities and circumstances with guidance</li> </ul>	<ul style="list-style-type: none"> <li>Generates effective resolutions to new or stressful situations; readily adjusts to changing priorities and circumstances</li> </ul>

**11. Ethical Behaviour.** The extent to which the student's behaviour demonstrates integrity and ethics in work and relationships.

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 Good Performance	<input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Needs guidance in making appropriate choices to avoid questionable conduct and/or a conflict of personal and professional interests</li> </ul>	<ul style="list-style-type: none"> <li>Is able to make the appropriate choices to avoid questionable conduct and/or a conflict of personal and professional interests</li> </ul>	<ul style="list-style-type: none"> <li>Proactively identifies potential conflicts of interest or questionable conduct and acts to avoid or mitigate these issues</li> </ul>

**12. Appreciation of Diversity.** The degree to which the student shows understanding and sensitivity to needs and differences of others (i.e. ethnicity, religion, language, etc.)

<input type="radio"/> 1 <input type="radio"/> 2 Developing Performance	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 Good Performance	<input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> Not Observed Superior Performance
<ul style="list-style-type: none"> <li>Has difficulty interacting with others due to individual differences</li> </ul>	<ul style="list-style-type: none"> <li>Has positive interactions with others and is respectful of individual differences</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates leadership in promoting positive interactions and encouraging others to work together despite individual differences</li> </ul>

**13. Entrepreneurial Orientation.** The student's demonstrated ability to take informed risks that demonstrate creativity and add value to the company.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	2	3	4	5	6	7	Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Has difficulty evaluating alternative ideas and making choices that enhance the department or organization</li> </ul>		<ul style="list-style-type: none"> <li>Able to evaluate alternative ideas and will sometimes make choices that enhance the department or organization</li> </ul>			<ul style="list-style-type: none"> <li>Able to effectively evaluate alternative ideas and independently makes choices that enhance the department or organization</li> </ul>		

**14. Written Communication.** The extent to which the student demonstrates effective written communication.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	2	3	4	5	6	7	Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Not consistently clear and concise or requires frequent checking and editing</li> </ul>		<ul style="list-style-type: none"> <li>Normally clear, well organized and understandable and needs only moderate checking and editing</li> </ul>			<ul style="list-style-type: none"> <li>Always clear, well organized and easily understandable; rarely requires checking and editing</li> </ul>		

**15. Oral Communication.** The extent to which the student demonstrates effective oral communication.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	2	3	4	5	6	7	Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Occasionally encounters difficulty with expressing ideas clearly and persuasively; demonstrates discomfort with public speaking</li> </ul>		<ul style="list-style-type: none"> <li>Normally clear, well organized, understandable, and persuasive, good public speaker</li> </ul>			<ul style="list-style-type: none"> <li>Always clear, well organized, easily understandable, and exceptionally persuasive, excellent public speaker</li> </ul>		

**16. Interpersonal Communication.** The extent to which the student effectively listens, conveys, and receives ideas, information, and direction.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	2	3	4	5	6	7	Not Observed
Developing Performance		Good Performance			Superior Performance		
<ul style="list-style-type: none"> <li>Displays inconsistent listening skills and is reluctant to seek input from others</li> </ul>		<ul style="list-style-type: none"> <li>Interactions with others demonstrate acceptable listening skills and the ability to sometimes seek the opinions, ideas, and expertise of others</li> </ul>			<ul style="list-style-type: none"> <li>Interactions with others demonstrate exceptional active listening skills and the ability to proactively seek the opinions, ideas, and expertise of others</li> </ul>		

## OVERALL PERFORMANCE RATING

<p><b>Outstanding Performance</b></p> <ul style="list-style-type: none"> <li>The student has significantly exceeded all behavioural and developmental performance expectations in respect to output, quality standards, delivery of goals and assignments</li> <li>This rating is <b>reserved for only those few students</b> who have distinguished themselves by their unique contribution or exceptional performance</li> </ul> <p>Your written comments are required below in order to register the rating of Outstanding.</p>	<input type="radio"/>
<p><b>Excellent Performance</b></p> <ul style="list-style-type: none"> <li>The student has exceeded all performance expectations in respect to output, quality standards, delivery of goals and assignments</li> <li>Receiving this rating means the manager is delighted with this student's performance</li> </ul>	<input checked="" type="radio"/>
<p><b>Very Good Performance</b></p> <ul style="list-style-type: none"> <li>The student has met all and exceeded some performance expectations in respect to output, quality standards, delivery of goals and assignments</li> <li>Receiving this rating means the manager is very pleased with this student's performance</li> </ul>	<input type="radio"/>
<p><b>Good Performance</b></p> <ul style="list-style-type: none"> <li>The student meets performance expectations in respect to output, quality standards, delivery of goals and assignments</li> <li>Receiving this rating means the manager is pleased with this student's performance</li> </ul>	<input type="radio"/>
<p><b>Satisfactory Performance</b></p> <ul style="list-style-type: none"> <li>The student has not fully met the performance expectations in respect to output, quality standards, delivery of goals and assignments</li> <li>Receiving this rating means the manager is mostly satisfied with the student's performance</li> </ul>	<input type="radio"/>
<p><b>Marginal Performance</b></p> <ul style="list-style-type: none"> <li>Overall performance requires improvement and/or certain key aspects of performance require improvement while other aspects may be satisfactory</li> <li>Receiving this rating means the manager is displeased with this student's performance</li> </ul>	<input type="radio"/>

**Unsatisfactory Performance**

- The student did not meet performance requirements

**Supervisor's Comments** - Please comment on the student's overall job performance.

Lucas has a great knowledge of programming, and has learned how to manage complex fabrication procedures that are required to produce wafer-scale molecular devices. Lucas worked hard to achieve project goals, and showed an increasing independence through the term. He was able to demonstrate wafer-scale production techniques to completion, and created unique ways to evaluate device performance. Lucas also prototyped 3-D printed solutions for use as adapters, and was able to demonstrate the concept and show that it will work. All of the techniques and many of the solutions Lucas developed are now being used in full production for molecular devices.

**Student's Comments** - Please comment on your overall performance including your ability to achieve learning objectives and your future employment expectations.**Supervisor's Recommendations** - Please provide your recommendations for the student's personal and/or professional development (optional).

Without a doubt, Lucas understands how to achieve a goal he is given. In order to go to the next level, Lucas should look to how goals are set in the first place, and understand the decision-making that goes into which things will be attacked and those which will not be pursued. Separate from this, Lucas could work on planning out lab work so that each step has adequate time to be done. Such planning can help to make work flows more efficient, and this is a skill that will certainly be useful in the future!

**\* required fields**

**\*Did you review the completed evaluation form with the student?** Please ensure the student has a copy.

☐ Yes☒ No

**\*Do you wish to have the student return for the next work term?**

☐ Yes☐ No☒ Not Applicable

**\*If yes, have you offered to re-employ the student for the next work term?**

☐ Yes☐ No☐ To be determined

**If yes, was your offer:**

☐ Accepted☐ Declined

**If the student accepted, please confirm the work term dates:**

☐ Dates☐ To be determined

Co-operative Education will contact you to confirm new job details.

**Supervisor:** Adam Bergren

**Title:** Research Officer and Program Coordinator

**Management/Human Resources:**

**Title:**