

*****THIS IS A TEST GRADE*****

Accessories of the Future

Objective: To use your critical and creative thinking skills to communicate and collaborate with your group to design a unique accessory that solves a design problem using the Arduino software and Lilypad Protosnap.

Each group will provide one outfit their customer will be wearing along with a design need; students will assess the outfit and create a customer bio. Once students have created the details of their customer, they will then solve the given customer dilemma by designing an accessory that compliments the outfit but also incorporates wearable technology.

As a group, answer the following questions:

1. Choose your outfit. Develop your customer's story. Who is she/he? Where is she/he going? What does she/he like to do?
2. What is your design dilemma/need?
3. How will you solve the dilemma/need with the Arduino Lily Pad Kit? Why does she/he need light and sound in the accessory?
4. Create a basic sketch of your design with the parts **labeled**. You will have 4 lights, 1 speaker, and the circular board. Using felt or scrap fabric, glue, staples, or thread, your group will create a flat (2-dimensional) version of your accessory.

5. Assign a job for each member:

Job 1- Coder (2 students)

Job 2- Accessory craftsman (2 students)

Job 3- Sew Lilypad to accessory

Job 4- Project write up- 1 per group to be turned in with- Write a paragraph telling the class about the following:

- Who is your customer and what is their need?
- How did you solve the problem with Lilypad?
- How does the accessory compliment the outfit?

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Evaluate your Group: Using the rubric below, evaluate your groups ability to practice Creativity, Communication, and Collaboration

Performance Area	1	2	3 (Proficient)	4
Creativity (How creative is the group)	Generates few ideas. It is hard to see a connection between designs and inspiration.	Communicates ideas to meet the challenge, but the volume is not sufficient to spark a creative process. Designs are reminiscent of the iconic designer's style but seem like copies.	Student generates high volume of clear ideas that closely address the challenge and are sufficiently detailed to spark a creative process. Designs are original, and would totally fit into the design category but could be more creative.	Generates high volume of new ideas in response to open-ended questions or problems. Designs are original, creative, and would totally fit into the design style.
Communication (How well can they communicate their idea)	Inability to have a conversation	Show an ability to have conversation on topic. Gets distracted easily. Student has a hard time defending designs..	Shows an ability to have meaningful conversations that remain on the surface.	Student Shows an ability to have in-depth and meaningful conversations. Can defend the designs without hesitation.
Collaboration (How well does the group work together)	Shows a lack of willingness or hesitation to accept responsibilities. Refrains from offering feedback.	Shows a willingness to accept responsibilities. Sometimes accepts constructive feedback; shows minimal appreciation for constructive feedback.	Accepts responsibilities with a positive attitude. Consistently provides and accepts constructive feedback; delivers feedback effectively in a manner that is well-received by the recipients.	Shows excitement about the task at hand; inspires and motivates the group. Shows a high comfort level in providing and receiving feedback; displays curiosity about the quality of work and seeks out helpful, descriptive feedback from peers, the teacher, and experts involved; provides and receives feedback in ways that advance the group's ability to produce high quality work.

1. Explain **why** you gave your group was the score for creativity? What could you have **improved** on?
2. Explain **why** you gave your group was the score for Communication? What could you have **improved** on?
3. Explain **why** you gave your group was the score for Collaboration? What could you have **improved** on?
4. Did all group members participate equally? Yes or NO
5. What was **challenging** about this activity and **how** did your group accomplish the task?