## TeachEngineering

Name:	Date:	Class:

## **Activity Worksheet**

#### Part 1: Personal Evaluation

Imagine you are a *Time Magazine* editor who must choose just ONE design for the "Invention of the Year," plus one runner up. Indicate your choices below and explain how you designated first and second place.

#### My first choice: \_\_\_\_\_

Why? In your judgement, what important criteria does this invention meet?

My second choice: \_\_\_\_\_

Why? In your judgement, what important criteria does this invention meet?

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#### Part 2: Critical Evaluation

As a class, you voted on the two most influential inventions of 2014. Using complete sentences, answer the following questions for each of those designs.

#### The first invention my class chose was \_\_\_\_\_

- 1. Who does this design benefit? In what ways?
- 2. Who or what might be harmed by this design? In what ways?
- 3. Who might be discouraged or excluded from using this design?
- 4. Who funded the development of this design, and why do you think they funded it?
- 5. After looking more critically at this design, is there anything else you noticed about it?



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#### The second invention my class chose was \_\_\_\_\_

- 1. Who does this design benefit? In what ways?
- 2. Who or what might be harmed by this design? In what ways?
- 3. Who might be discouraged or excluded from using this design?
- 4. Who funded the development of this design, and why do you think they funded it?
- 5. After looking more critically at this design, is there anything else you noticed?

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#### Part 3: Class Definition of Ethics

Review the *Engineering Code of Ethics* and discuss as a class. Create a class definition of "ethics" by agreeing on five most-important principles.

1.	
2.	
3.	
4.	
5.	
-	

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#### Make Your Own Alternative Design

Review the *Top Inventions*, choose one, and create an alternative design. Make your alternative design more ethical according to the class definition of "ethics." At the end of the period, you will present your design to the Bill and Melinda Gates Foundation who will decide which design to fund. Be sure to keep in mind the definition of "ethics" agreed upon by the class.

1. What ideas do you have for modifying an existing design to make it more ethical?

2. What problem(s) can your design solve?



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As you consider a design, write down five questions that occur to you. Come up with one question in each of the following topic areas: manufacturing, testing, availability and impact; and one last question of your choice.

Write the questions in the boxes below.

Manufacturing:		Testing:	
Availability:	Impact:		Other: