

Hackathon Mission: Design an interactive toy

Your mission today is to design, build and program an interactive toy with Arduino.

Requirements for the toy

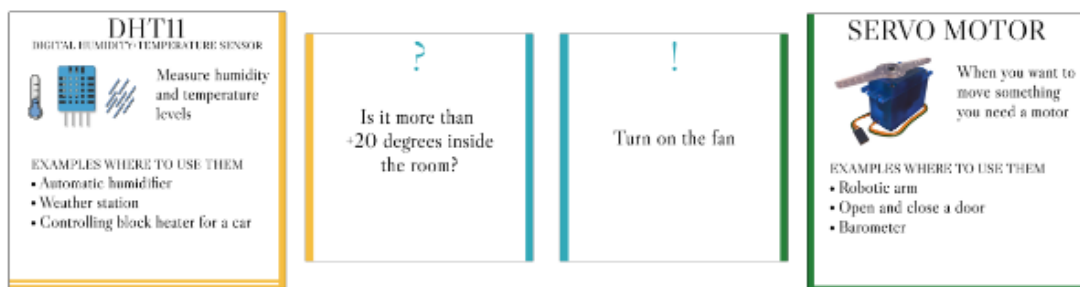
- Target group should be kids, elderly people, chronically ill, or pets
- At least one input (kit includes: buttons, light sensor, humidity/temperature sensor)
- At least one output (kit includes LEDs, speaker, motor)

Things you have to use

- Arduino and hardware
- Arduino Learning Cards that will help you to program, wire and design the toy
- Arduino Kit
- Crafting materials to decorate your toy such as glue gun, paper, pens, etc.

Arduino Cards.

1. Here is one example of how Arduino Learning cards can be used when creating a concept:



Example question and statement combinations, what inputs and outputs cards would work with these:

- Is it dark?
- Turn on the lamp!
- Is someone hugging the teddy bear?
- Turn on the bear's LED eyes!

2. You can already start thinking about the project you would like to do. What problem would you like to solve? Make it into a question and write it to the **?-card**. This question should be phrased in a way that answer can only be true or false. (Later when programming these questions will be used as a condition for if functions) Then what should happen if the answer to these questions is true? Write that into the **!-card**. After filling these two cards try to find suitable input(orange) and output(green) cards.

3. Now think of your target group: is this for kids, elderly people, chronically ill people, or for pets. When designing your concept you should think about how, why and in what situation they would use it. What are some of the restrictions that your target group will set for you? Can they, for example, press a button or should it be some other way to trigger the toy?