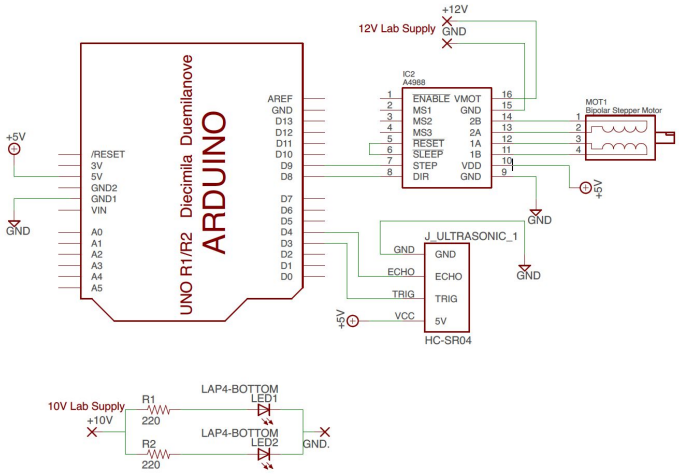
1. Our big idea is to allow users to experience an interactive story through projection. This addresses the museum's context by allowing the user to use movements to control different aspects of the projection and story. Although it may lack an educational aspect, it does embody a sense of wonder. Our input is a force sensitive resistor that is in the form of a strip. The user would "swipe" along the resistor and that movement causes the wheel to move in the user's direction and speed. The output are multiple rack-and-pinion gears that are aligned in front of one another. The rack-and-pinion is restricted to linear motion that is dependent on the length of the linear gear bar so the projection will reflect a back and forth motion.
2. The answer to the essential underlying question is in the drawing, please look below. The simplest abstraction of our idea would be how human touch can affect the visual environment.
3. The users will include both children and adults. Children are encouraged to actively engage in controlling the different layers that are part of the overall scene and come up with stories of their own. Adults can also take part in controlling the story. Collaboration would create a more interesting experience.
4. One "project" that was referenced in the development of this project were shadow play or shadow puppetry. Shadow play is a form of storytelling that utilizes cut-out figures and a light source to project a shadow and reflect a story. Touch-Responsive Clock by Breaded Escalope: (http://www.dezeen.com/2015/10/23/breaded-escalope-touch-shadow-clock-vienna-design-week-2015/)
5. 

6. Olivia will do tasks concerning circuitry and more of the electrical component. Cy will do tasks concerning the design and physical structure of the object. Together we will work out the coding aspect and assembly.
7. We will choose to ignore instances where multiple users would be touching the same sensor. We will be assuming that each sensor only has one user interacting with it.
8. We will be specifically testing the how well the input signal can be translated into mechanical output and the calibration of the movements.
9. Quantitatively, the project will be successful if the human input is effectively transformed into affecting the mechanical system for the projective interface. Qualitatively, the project would be a success based on how immersed the users are when interacting with the wall and the diversity of storytelling that emerges from it.
10.