

Allison Morgan

MSD I – P21068

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Selection Criteria

1. Is Easy to Use
 - The device needs to be able to be used by students with varying physical abilities. It is imperative that the device is easy to use and will not cause frustration. Additionally, the device will be set up before class each time in a short time frame. To achieve this, the components will need to be easy to use.
2. Is Cheap
 - We have a limited PRP budget of \$1000. The concepts need to be relatively cheap to ensure we stay within budget and can purchase all the needed components.
3. Is Safe
 - The device will be used by students, teachers, and aids. It needs to be safe in order to ensure a positive user experience and that no one is hurt by using the device.
4. Is Lightweight and Not Bulky
 - The device needs to be portable. It will be moved from classroom to classroom and assembled/disassembled often. Ensuring the device is lightweight and not bulky will make moving it around a more positive experience.
5. Fits on a desk, is relatively small
 - The device will need to fit on the student's desk, so they can use it. Additionally, ensuring it is relatively small will make sure the device does not obstruct the student's view of the teacher and the artwork being created.
6. Can be designed and built in around 24 weeks
 - We only have 2 semesters in MSD to design and build the device. This is about 24 weeks. At the end of the second semester, we need to deliver a working prototype to our customer. Some concepts may meet the other criteria, but if they are too complex and can't be finished in time, they are not viable options.
7. Repairability
 - The device needs to be easily repairable, and any broken/missing parts need to be easily replaced. Our client will use the device in a school and most of the teachers/aids who will be helping the students use the device do not have an engineering background. Ensuring the device is easily repaired will guarantee the device can be used for a long period of time.