

Project Deliverable B: Need Identification and Problem Statement

GNG1103, Section # A02

Team # 20

Team Members:

- Michael Saber
- Justin Mahfoud
- Ayo Akinbile
- Tate Sharp
- Macauley Aicken

Need Identification:

| Rank (1 to 3) | Customer Statement | Interpreted Need |
|---------------|--------------------------|---|
| 2 | The product is intuitive | The device is easy to use and can be used by anyone. |
| 3 | Open-source | The device is open-source so that anyone around the world can replicate it and print it. |
| 2 | Portable | The device is small enough to be easy and quickly printable. It is also lightweight and portable. |
| 2 | Expandable | The device is easy and inexpensive to repair and/or replace. |
| 3 | Works with Bowie | The device is able to attach to Bowie and can also be powered by Bowie's batteries. |
| 1 | Unintrusive | The device is quiet and does not leave a negative footprint. |
| 3 | Automation | The device operates automatically. |
| 3 | Helps environment | The device has a use that can help the environment. |

Problem Statement :

There is a need to help citizens clean and save the environment with a device that works in conjunction with Bowie, is easily printable by any 3D printer and can be operated automatically with the help of said citizens.