6 Professionalism

6.1 AREAS OF RESPONSIBILITY

IEEE Standard: To uphold the highest standards of integrity, responsible behavior, and ethical conduct in professional activities.

1. To hold paramount the safety, health, and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose promptly factors that might endanger the public or the environment.

2. To improve the understanding by individuals and society of the capabilities and societal implications of conventional and emerging technologies, including intelligent systems.

3. To avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist.

4. To avoid unlawful conduct in professional activities, and to reject bribery in all its forms.

5. To seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, to be honest and realistic in stating claims or estimates based on available data, and to credit properly the contributions of others.

6. To maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations.

Area of Responsibility	Definition	NSPE Canon	Similarity to IEEE Standard
Work Competence	Perform work of high quality, integrity, timeliness, and professional competence.	Perform services only in areas of their competence; Avoid deceptive acts.	Uphold the highest standards of integrity, responsible behavior, and ethical conduct in professional activities. To hold paramount the safety, health, and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose promptly factors that might endanger the public or the environment.

Financial Responsibility	Deliver products and services of realizable value and at reasonable costs.	Act for each employer or client as faithful agents or trustees.	Avoid unlawful conduct in professional activities, and reject bribery in all its forms.
Communication Honesty	Report work truthfully, without deception, and understandable to stakeholders.	Issue public statements only in an objective and truthful manner; Avoid deceptive acts.	Seek, accept, and offer honest criticism of technical work, acknowledge and correct errors, be honest and realistic in stating claims or estimates based on available data, and credit properly the contributions of others.
Health, Safety, Well-Being	Minimize risks to safety, health, and well-being of stakeholders.	Hold paramount the safety, health, and welfare of the public.	To hold paramount the safety, health, and welfare of the public, strive to comply with ethical design and sustainable development practices, protect the privacy of others, and disclose promptly factors that might endanger the public or the environment.
Property Ownership	Respect property, ideas, and information of clients and others.	Act for each employer or client as faithful agents or trustees.	Avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.
Sustainability	Protect environment and natural resources locally and globally.		Strive to comply with ethical design and sustainable development practices.
Social Responsibility	Produce products and services that benefit society and communities.	Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.	Conduct themselves with integrity, responsible behavior, and ethical conduct in professional activities to enhance the honor, reputation, and usefulness of the profession.

6.2 PROJECT SPECIFIC PROFESSIONAL RESPONSIBILITY AREAS

1. **Work Competence** - This standard is extremely applicable to our project since without a high standard of work ethic, timeliness, and professionalism, this project will not be successful and the final product will be riddled with many bugs or other shortcomings which would represent a failure to deliver the intended device. This standard is applicable to any team responsible for delivering a product or service. On this standard our team has delivered high quality results with vigorous note taking over all meetings, vehement research on required components, and group brainstorming/work sessions.

2. **Financial Responsibility** - This standard applies to our project since our goal is to create a device for sight impaired people to use, and giving this device a high price would make it more difficult for our intended users to use this product. We have been good at conserving our financial resources to build this device by not wasting money on unnecessary components for our project.

3. **Communication Honesty** - This standard is applicable to our project since honesty between our team and the client or advisors is essential to a better development process for this product. Our team has been good at following this standard since when meeting with our client and our advisors, we always give truthful progress reports and we make sure our client and advisor understand the progress being made on our project.

4. **Health, Safety, Well-Being** - This standard is applicable to our project since our product is aimed to help sight-impaired people navigate the world freely without injury. If we don't consider the health and safety of our clientele when making this product, we go against the whole purpose of our product. We have enforced this standard very well by studying many components of our design to make sure the client has a good user experience including making sure objects are properly recognized by our stereoscopic camera, and making the user experience pleasant with the haptic motors that are worn by our users.

5. **Property Ownership** - This standard is applicable to our project since our design involves using a camera to pick up objects in front of our users which could be seen as an invasion of privacy. Our design nullifies this by making sure that the images that our camera picks up are never saved or disseminated to other sources.

6. **Sustainability** - This standard could be applicable for our project if we use materials that have negative environmental implications. In our design we are not using materials that have negative environmental effects. In fact many components of our design are widely used in the industry and are generally accepted for product creation.

7. **Social Responsibility** - This standard is very applicable to our project since this product is being created for vision impaired individuals which would be a tremendous benefit for society since this would allow vision impaired individuals to assimilate further into society. Our group's maintained development of this product shows that we have followed this standard to a high degree.

6.3   MOST APPLICABLE PROFESSIONAL RESPONSIBILITY AREA

The most applicable professional standard to this project would be the health, safety, and well being standard. This standard is at the essence of this product due to this product being for vision impaired individuals, so health, safety, and well being of those certain individuals is at the forefront of all of our design situations. We will make sure to evaluate potential risks associated with the system, such as incorrect object detection or delayed feedback, and implement measures to mitigate these risks. We will also consider ergonomic design and user interface principles to ensure that the system, particularly the haptic motors, does not cause discomfort or harm during use.