User and Product Manual Instructions

This document is a template of a user and product manual. The client may wish to make improvements on the prototype or need to fix it if something goes wrong or another group of students may work to make a more rugged prototype. The document needs to be clear for someone else who is not an engineer **to use, maintain or reproduce the project**. Include as many images and diagrams as possible for a better understanding. Keep it plain, simple, visual and logical.

In general, if you are not sure exactly what to include, imagine that this document was the only thing that you had. Imagine also that your job was to add a new feature or recreate the project that is described in your document. What would you need to know?

Only include details relating to your final prototype.

Template conventions:

- Remove all red text, it is only there to guide you
- Remove this page (instructions)
- Replace all instances of <xxx> with the appropriate information for your group, for example you could replace <System Name (Acronym)> by The Amazing Product (TAP)
- Save this document as 'User and Product Manual_group number' instead of Deliverable X so that others know what it represents when they see it in MakeRepo

GNG<1103/2101>

Design Project User and Product Manual

<TITLE>

Submitted by:

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List of Tables

List of Acronyms and Glossary

Provide a list of acronyms and associated literal translations used within the document. List the acronyms in alphabetical order using a tabular format as depicted below.

Table 1. Acronyms

Acronym	Definition

Provide clear and concise definitions for terms used in this document that may be unfamiliar to readers of the document. Terms are to be listed in alphabetical order.

Table 2. Glossary

Term	Acronym	Definition

0 Introduction

This User and Product Manual (UPM) for the Rotating 360° Camera Mount (RCM) is a concise guide intended for wheelchair users and their caregivers, focusing on enabling accessible and inclusive photography. Organized into sections covering setup instructions, operational guidelines, maintenance, troubleshooting, and safety and privacy considerations, this manual aims to provide a thorough understanding and efficient use of the RCM. Designed with the purpose of empowering differently abled individuals to capture life's moments freely, it also serves as essential documentation for the prototype, catering to a wide audience including users, caregivers, and technical support teams. Highlighting safety, security, and privacy, the manual underscores our commitment to user well-being and the integrity of the RCM as an innovative solution for accessibility.

1 Overview

The 360° Rotating Camera Mount (RCM) addresses a significant gap in accessibility for people with different abilities, especially those who use wheelchairs, who face challenges capturing moments from their own perspective. The importance of solving this problem is to allow these people to freely and independently document the moments of their lives, promoting inclusivity and improving the quality of their lives.

Questions and their importance:

The core issue that the RCM aims to address is the limited accessibility of photography and video equipment for wheelchair users. This population has unique needs, including the need for hands-free camera operation and complete control over the camera's position and angle, which traditional camera mounts cannot meet. The ability to record experiences from one's own perspective is not just a matter of convenience but of autonomy and expression, making it a critical issue to address.

User needs:

Basic needs of users include:

- Ability to install and control a camera from a wheelchair without assistance.
- Flexibility in camera angles and positions captures a wide range of perspectives.
- Simple, intuitive controls that don't require a lot of body movement.
- Durable and stable platform ensures high-quality materials.

Differences from other products:

The RCM stands out among existing solutions with its customizable 360-degree rotation feature, user-friendly controls and adaptability to a variety of wheelchair models. Unlike other mounts that have limited movement and require manual adjustment, RCM offers a comprehensive solution designed to meet the needs of users of varying abilities.

Key features:
- 360 Degree Rotation: Allows the camera to capture all angles, providing unparalleled versatility.
- Adjustable Height and Tilt: Users can easily adjust the height and tilt of the camera to suit their needs.
- Multiple control methods:Includes Xbox controller, motion detection and computer vision, tailored for ease of use.

Building and Construction:
The RCM is constructed with a lightweight yet durable metal frame to ensure stability and durability. It integrates a microcontroller for intelligent operation and supports various user access modes such as push-button control and an easy-to-use graphical user interface (GUI). Special conditions considered in the design included the need to quickly fold and unfold the frame for transport, and the system's ability to adapt to different wheelchair models without tools.

In conclusion, the RCM is more than just a camera mount; it is an empowering and inclusive tool carefully designed to meet the nuanced needs of differently abled individuals. By solving key challenges and delivering innovative features, RCM opens new possibilities for users to capture and share their world.

Conventions

This document has no special stylistic or command syntax conventions.

Cautions & Warnings

The following cautions and warnings are provided to ensure the safe and proper use of the Rotating 360° Camera Mount. Adherence to these guidelines is essential to avoid potential risks and to maintain the device’s integrity and operational efficiency.

Cautions

1. Handling the Device:

- Caution: Handle the camera mount with care. Dropping or subjecting it to impact can damage mechanical and electronic components.

- Precaution: Always hold the device by its base, not by its rotating arms or the camera itself.

2. Installation:

- Caution: Incorrect installation can lead to equipment failure or malfunction, potentially causing injury.

- Precaution: Follow the installation instructions precisely and ensure all components are securely fastened before use.

3. Environmental Conditions:

- Caution: Do not operate the device in extreme weather conditions or in environments with high humidity, as this can affect electronic components and mechanical functionality.

Warnings

1. Power Source:

- Warning: Using an incorrect power supply can lead to damage and potential hazards.

- Instruction: Use only the recommended power supply and check that all connections meet local electrical safety standards.

2. Modification and Repairs:

- Warning: Unauthorized modifications or repairs can cause system failure, electrical hazards, and void the warranty.

- Instruction: Contact authorized service centers for repairs, and do not attempt to alter the device’s hardware or software configuration.

3. Usage Restrictions:

- Warning: The device is not designed for use by individuals under the age of 12 without adult supervision.

- Instruction: Ensure that younger users are supervised at all times to prevent misuse and to maintain safety.

Adhering to these cautions and warnings will help ensure that all interactions with the Rotating 360° Camera Mount are safe and compliant with operational guidelines.

Getting started

In consideration of three possible system control method, here are all the component that you should have:

- Main Control Device Board with 360 Camera Rotation System
- Xbox Controller (for method one)
- Motion Detector (for method two)
- Laptop with (system driver) program script (for method three)

For better control performance, it is not recommended to use Method 1 and Method 3 together. Because they both used the Wi-Fi/BLE peripheral on the system main controller. It is normal for the device to start heating up due to Wi-Fi and Bluetooth peripheral.

There are RGB LEDs on the Main Control Device Board and Motion Detector to indicate if the component is working normally.

The device can be powered by 12/2A power supply (Recommended). 24V/1A power supply is the maximum, 9V/2A power supply is the minimum. For using the system mobility, the device can be powered with the XT60 3S (11.1V) RC LiPo Batteries. (2200mAh+)

Configuration Considerations

Method One – Controlling system with the Xbox Controller

Xbox Controller can connect to the Main Control Device board automatically, if the indicated light on the Xbox Controller keeps flickering, you should reset your Xbox Controller and retry. Two joysticks on Xbox Controller are used to control the different controlling angles of the 360-rotation system.

Method Two – Controlling system with the Motion Detector Method

Motion Detector can connect to the Main Control Device board automatically, after power on, leave it on a flat platform to initialize. After initialized, the RGB LED on the detector will turn green for 500ms and then go to colorful mode.

Holding the device, when the device detects any movement, it will convert movements as input signal for the 360-rotation system.

Method Three– Controlling system with the Computer Vision

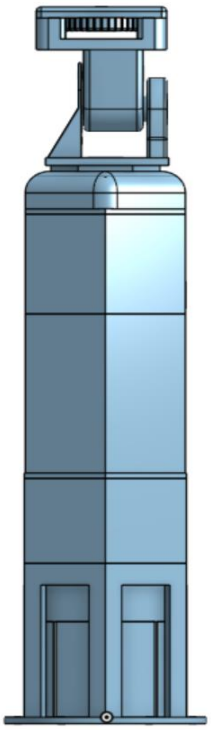
Running the CV system driver. The CV system driver will sense the first human face target as the reference. The head movements will be treated as input signals for the 360-rotation system.

User Access Considerations

The 360-Camera Rotation System is aimed at users that cannot hold cameras themselves or users with accessibility. Usually, they cannot control the camera's movement. The product is designed to give users special camera control methods by detecting arm and head movements and head tracking. In the future, Gestures, Muscle signal sensing or Facial expression controls can also be added as patches.

Accessing/setting up the System

The 360-Camera Rotation system is shown in the diagram.



Using the tripod hole below the camera to fix the camera on the 360-Camera Rotation System. The screw hole is matched with 1/20 UNC screw.

Choosing the method above to control the system.

System Organization & Navigation

To perform a great user experience and a low learning cost for the user, the system is collecting user's movement actively, so there is no specific navigation for the 360-Camera Rotation System.

Exiting the System

For Physical Prototypes: Rotating 360° Camera Mount

Properly putting away the physical prototype of the Rotating 360° Camera Mount involves several steps to ensure that the system is safely and efficiently stored without compromising its integrity or functionality:

1. Power Down:

- Ensure that the camera mount has completed any ongoing operations.

- Turn off the power by pressing the designated shutdown button on the control interface or the main unit.

bb

2. Disconnect Power Supply:

- Unplug any external power sources, including battery packs or power adapters, to prevent any electrical issues or unnecessary battery drain.

3. Remove Camera:

- Carefully detach any camera or equipment mounted on the camera mount to avoid leaving expensive equipment on a potentially unstable platform while not in use.

4. Clean and Inspect:

- Wipe down the mount with a dry or slightly damp cloth to remove dust and debris.

- Inspect for any visible signs of wear or damage, and note any issues for maintenance.

5. Secure Moving Parts:

- Lock all moving parts, such as arms or rotating bases, into a secure position using the locking mechanisms provided. This step prevents accidental movement that could lead to damage during storage.

6. Cover and Store:

- If available, place a protective cover over the mount to protect it from dust and other environmental factors.

- Store the device in a cool, dry place to avoid exposure to moisture or extreme temperatures which could damage the electronics or mechanical parts.

For Software Prototypes: Rotating 360° Camera Mount Control Software

Exiting or turning off the software system that controls the Rotating 360° Camera Mount should be done in a way that ensures data integrity and reduces the likelihood of software errors when it is next used:

1. Save and Close Files:

- Ensure that all settings, configurations, or video feeds are saved and closed properly. Use the 'Save' function in the software before exiting.

2. Shutdown Software:

- Close the software using the 'Exit' or 'Close' option from the file menu, ensuring that you follow any prompts to save settings or data that may appear.

3. Backup Data:

- If applicable, back up your data or settings to an external storage device or cloud storage to prevent data loss.

5. Perform a Full Shutdown:

- If the software runs on a dedicated system, perform a full shutdown of the system to ensure that all processes are terminated properly. This is particularly important for systems that manage hardware components to avoid leaving them in an uncertain state.

By following these steps, users can ensure that both the physical and software components of the Rotating 360° Camera Mount are properly shut down and stored, minimizing the risk of damage or loss of data and extending the life and functionality of the system.

Using the System

<Camera Rotation>

Motion detector senses user's movement through triaxial axis. Any different between two-unit time will be treated as an effective movement. The system can convert the movement and calculate the corresponding stepper motor movements that act on three Rotation angles, which are camera pitch rotation, camera yaw rotation, and camera height adjustment.

Troubleshooting & Support

Error Messages or Behaviors

To ensure effective troubleshooting and quick resolution of issues, it's crucial to understand the common error messages or behaviors associated with the Rotating 360° Camera Mount. Below are detailed descriptions of potential errors, their likely causes, and suggested corrective actions.

1. Error Message: "Low Battery Warning"

- Behavior: This alert appears when the battery level is critically low.

- Likely Causes: Insufficient charging, battery degradation.

- Corrective Actions: Charge the battery fully. If the problem persists, check the battery health and replace if necessary.

2. Error Message: "Motor Stalled"

- Behavior: The camera mount stops moving abruptly during operation.

- Likely Causes: Obstruction in the mount's path, mechanical failure, or overload.

- Corrective Actions: Remove any obstructions. Reset the device and try again. If the error recurs, inspect the motor and associated mechanical parts for damage.

3. Error Message: "Sensor Error"

- Behavior: The mount does not respond to control inputs accurately or at all.

- Likely Causes: Sensor malfunction or interference affecting the sensors.

- Corrective Actions: Ensure there are no external sources of interference near the mount. Reset the sensors or recalibrate them using the system settings. If the issue continues, the sensor may need to be replaced.

4. Error Message: "Overheating Alert"

- Behavior: The mount ceases operation and displays an overheating warning.

- Likely Causes: Excessive operation, ambient temperature too high, ventilation blocked.

- Corrective Actions: Turn off the mount and allow it to cool down. Check the operating environment and ensure adequate ventilation. Avoid continuous use beyond the recommended time limits.

5. Behavior: Unresponsive Controls

- Likely Causes: Control system failure, software crash, or power issues.

- Corrective Actions: Ensure the mount is powered and the control system is charged. Restart the control system and the mount. If unresponsive, conduct a factory reset as a last resort.

Special Considerations

When addressing issues with the Rotating 360° Camera Mount, there are several special considerations to keep in mind that can affect troubleshooting efforts. Understanding these nuances will help ensure effective maintenance and prevent common pitfalls.

1. Environmental Factors:

- Consideration: The device's performance can vary significantly with changes in environmental conditions such as temperature, humidity, and exposure to elements.

- Action: Ensure the device is used within the recommended environmental parameters. If issues occur, check if environmental conditions were within normal ranges at the time of malfunction.

2. Customization and User Modifications:

- Consideration: Users may customize or modify their camera mounts to better suit their specific needs, which can sometimes lead to unexpected issues.

- Action: Before troubleshooting, verify whether any modifications have been made. Custom modifications might require specific approaches to resolve any issues that arise.

3. Software Compatibility:

- Consideration: The mount utilizes software for movement control and might have compatibility issues with different versions of the operating systems or additional software installed by the user.

- Action: Check the software version and ensure compatibility with all system components. Update or rollback software if incompatibilities are identified.

4. Power Supply Variabilities:

- Consideration: Inconsistencies in the power supply can lead to erratic behavior or failure of the mount.

- Action: Verify the power source is stable and meets the specifications required for the mount. Consider using a power conditioner or UPS (Uninterrupted Power Supply) if power issues are suspected.

5. Mechanical Wear and Tear:

- Consideration: Over time, mechanical components such as gears and bearings may wear down, which can subtly affect performance before leading to more noticeable problems.

- Action: During regular maintenance, inspect for wear and tear. Replace worn parts promptly to avoid further damage and operational issues.

6. Interference from External Devices:

- Consideration: Electronic interference from nearby devices can impact the performance of electronic and sensor components of the mount.

- Action: Check the operating environment for potential sources of interference, such as strong electromagnetic fields from large electronic devices. Relocate the mount or the interfering devices as needed.

7. Firmware Updates:

- Consideration: Firmware updates can occasionally introduce bugs or alter functionalities in ways that might not be immediately apparent.

- Action: Keep a log of firmware updates. If issues arise post-update, review the update logs for recent changes that could be causing the problem. Revert to a previous firmware version if necessary to confirm if the update is the cause of the issue.

8. Accessibility Adjustments:

- Consideration: Adjustments made to enhance accessibility, like altering control sensitivity or switching control methods, can lead to unexpected challenges.

- Action: Document all adjustments and maintain a standard configuration as a backup. If problems occur, revert to the standard settings to diagnose whether the adjustments contributed to the issue.

Maintenance

Maintaining the Rotating 360° Camera Mount is crucial to ensure its longevity and optimal functionality. Regular maintenance helps prevent mechanical failures, ensures smooth operation, and extends the life of the device.

1. Visual Inspection:

- Procedure: Conduct a thorough visual inspection of all mechanical parts for any signs of wear, damage, or loose components.

- Purpose: To identify and address potential issues before they lead to operational failures.

2. Battery Check:

- Procedure: Verify the battery level and health. Charge the battery if it falls below 50% capacity.

- Purpose: To prevent unexpected power losses during operation, which could impact the device's performance and longevity.

3. Lubrication:

- Procedure: Apply appropriate lubricants to all moving parts, such as the stepper motors and rotating joints.

- Purpose: Reduces friction and wear, enhances smooth operation, and prevents squeaks or stiffness in movement.

4. Electronic System Check:

- Procedure: Inspect wiring and connections for signs of fraying or corrosion. Test the electrical continuity and ensure all connections are tight.

- Purpose: Ensures the electrical system is safe and functioning correctly, preventing electrical failures and potential hazards.

5. Clean and Protect:

- Procedure: Clean the device thoroughly to remove dust and debris. Check for any rust or corrosion, especially if used in potentially harsh environments, and apply protective coatings if necessary.

- Purpose: Prevents build-up that could clog or hinder moving parts and protects the device from environmental damage.

6. Professional Inspection:

- Procedure: Schedule a maintenance check with a qualified technician who can perform a detailed inspection and servicing of the device.

- Purpose: Ensures that the device is thoroughly examined and maintained by professionals, providing an additional level of scrutiny beyond regular user maintenance.

Following these maintenance guidelines will help ensure that the Rotating 360° Camera Mount operates reliably and continues to meet the needs of its users effectively. Regular maintenance is not only about fixing problems but also about preventing them, thereby enhancing the user experience and device longevity.

Support

Providing robust and responsive support is essential for ensuring the continuous operation and user satisfaction of the Rotating 360° Camera Mount. Below are the detailed support mechanisms and contact information for emergency assistance and routine support inquiries.

Support Structure

1. Government Services: Start with the official City of Ottawa website. It provides resources and contact information for various municipal services. For provincial or federal services, accessing Ontario.ca or Canada.ca would be beneficial, as these sites categorize services and departments comprehensively.

2. Educational Institutions: The websites of local universities and colleges, like the University of Ottawa, Carleton University, and Algonquin College, often have directories and contact information for various departments and services.

3. Healthcare Facilities: For medical services, hospitals, and clinics, the Ottawa Hospital or Ottawa Public Health websites offer detailed sections on their services, locations, and contact methods.

Reporting Problems

1. Initial Contact:

- Users should initially contact help desk support via email or phone to report any issues. Please provide a detailed description of the problem, including the context in which it occurs and any error messages displayed.

2. Follow-Up:

- If initial troubleshooting does not resolve the issue, the help desk will escalate the problem to the technical support team. A ticket will be generated, and users will receive a ticket number for reference.

3. Resolution:

- The technical support team will handle the problem according to its severity and the impact on user operations. Users will be kept informed about the status of their ticket and estimated resolution times.

Security Incident Handling

1. Identification and Reporting:

- If users suspect a security incident (e.g., unauthorized access or data breach), it should be reported immediately via the emergency support line to ensure rapid response.

2. Response and Mitigation:

- The technical support team will assess the incident and take necessary steps to mitigate any damage. This may include temporarily disabling access to the system, revoking user permissions, or deploying security patches.

3. Recovery and Communication:

- Once the immediate threat is neutralized, the team will work on restoring full functionality to the system. Users will be informed about the nature of the security incident and the steps taken to resolve it.

4. Review and Prevention:

- After resolving the incident, a detailed review will be conducted to understand the cause and to prevent future occurrences. Recommendations and updates may be issued to all users to enhance security.

By providing these comprehensive support services, OpenUV aims to ensure that all users of the Rotating 360° Camera Mount experience minimal downtime and receive the assistance they need promptly. This support framework is designed to maintain high levels of user satisfaction and trust in the product.

Product Documentation

<Subsystem 1 of prototype>

1.1.1 BOM (Bill of Materials)

Component name	Note	Function	Amount	Unit Price
Prototyping PCB board	Dimension: 5cm * 7cm	Wiring for electrical assembly	x 2	0.54$
esp32c3fn4 minimum system board	support Wifi 4/BLE 5.0 Wireless communication	Main Control Unit	x 2	3.34$
mpu6050 motion sensor	IMU sensor	Detecting human motion	x 1	1.79$
A4988 stepper motor driver board	red skin, with cooling fin	driving stepper motors	x 3	0.73$
LM7805 LDO Transistor	ldo module, TO220 SMT	converting input volts, provide stable power	x 2	0.72$

Al Capacitor	aluminum electrolytic capacitor, 47uF	Filtering input power	x 2	0.40$
NEMA 17 stepper motor	should be replaced by NEMA 14 or NEMA 8	output device	x 3	3.76$
Sk6812 RGB LED	WS2812 / SK6812	indicator light	x 2	0.75$
Screw Rod with flange	100mm len	hight adjustment	x 1	0.85$

Equipment list

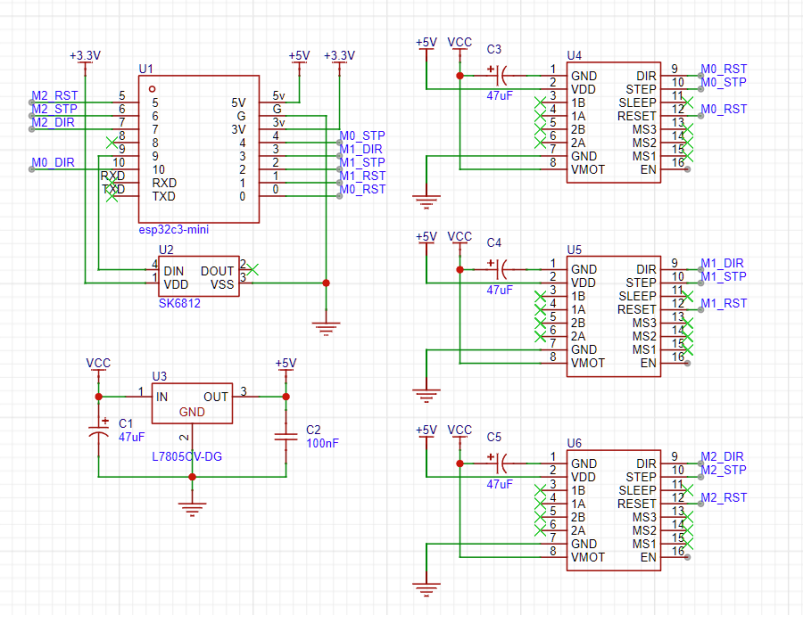
- Soldering and Assembly Tools: Including soldering iron, solder wire, desoldering tools, and various sizes of screwdrivers for the intricate assembly process.
- 3D Printer: For prototyping and manufacturing custom parts such as the system shell and any brackets or mounts specific to the camera and wheelchair interface.
- 3D Printing Finishing Tools: Such as sanding equipment, for post-processing the 3D printed components to achieve the required smoothness and fit.
- Soldering Station: Essential for assembling and repairing electronic components, including the microcontroller, sensors, and motor driver boards.
- Digital Multimeter: For testing electrical connections, verifying voltages, and troubleshooting electronic circuits within the system.

- Power Supply: To provide a controlled power source for testing the subsystem without the need for its independent power supply to be active.
- Wire Stripper and Cutter: To prepare and customize electrical wiring between components, ensuring a neat and functional electrical layout.
- Crimping Tool: For attaching connectors to wires, especially necessary if the system includes modular or detachable sections.
- ESD (Electrostatic Discharge) Safety Equipment: Including ESD mat and wristband to protect sensitive electronic components from electrostatic damage during handling and assembly.

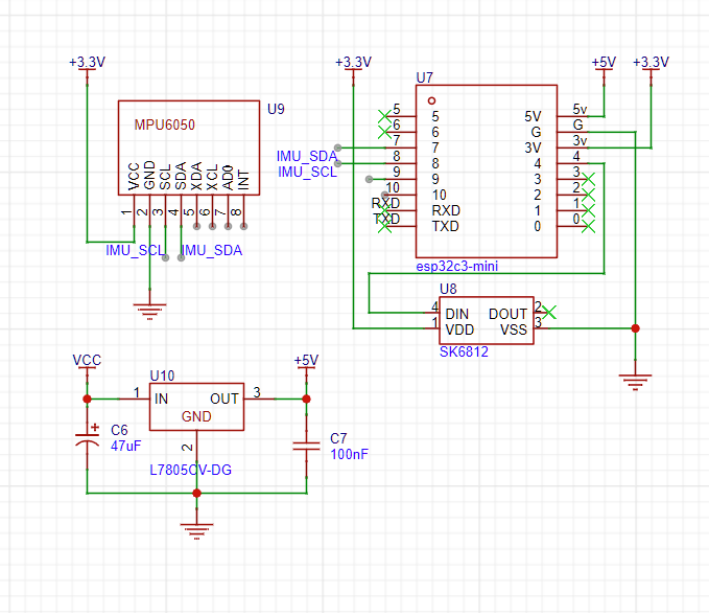
Instructions

Diagram for the electrical control system:

- Main Control Device Board



- Motion Detector



More details about the project please refer to the Github Link:

https://github.com/d0pplerAKA/Accessible-Camera-Operation

[d0pplerAKA/Accessible-Camera-Operation: GNG2101 Engineering Design, 2023 Winter, University of Ottawa (github.com)]

Testing & Validation

This section explains the various tests conducted on the prototype of the Rotating 360° Camera Mount (RCM), which is designed to facilitate accessible and inclusive photography for wheelchair users. The tests were aimed at validating the final design and ensuring its functionality, safety, and user-friendliness.

1. Functional Testing:
   - Objective: To verify that the mount rotates 360 degrees and the camera can be tilted and adjusted as intended.
   - Method: The mount was installed on a standard wheelchair, and various cameras were mounted to test the rotation and tilt mechanisms under controlled conditions.
   - Results: The mount successfully rotated 360 degrees and allowed for tilt adjustments without instability.

2. Durability and Stability Testing:
   - Objective: To ensure the mount remains stable and functional under dynamic conditions.

- Method: The wheelchair with the mounted camera was navigated through different terrains such as ramps, tiles, and carpeted areas to simulate real-world usage.
- Results: The mount showed no signs of loosening or deterioration of components, maintaining stability across various terrains.

3. Safety Testing:
- Objective:To ensure that the mount does not pose any safety risks to the user.
- Method: Safety inspections were conducted to check for sharp edges, pinch points, and electrical safety of the motor and controls.
- Results: No safety hazards were identified, and all electrical components were securely enclosed.

Issues and Special Requirements for Sustained Usage
- Battery Life: The mount uses a battery for operation, which needs regular charging. Users must ensure the battery is charged to maintain uninterrupted operation.
- Maintenance: Regular checks are required to ensure the screws and movable parts are tight and well-lubricated to avoid wear and tear.
- Weather Considerations: While the mount is designed to be durable, it is advised to avoid using it in extreme weather conditions to prevent damage.

The testing phase of the RCM has confirmed its functionality, safety, and accessibility, making it a viable product for wheelchair users looking to engage in photography. However, attention should be given to maintenance and operational guidelines to ensure longevity and performance.

Conclusions and Recommendations for Future Work

Conclusions:

Over the course of this project, our team successfully designed, developed, and tested the Rotating 360° Camera Mount, which significantly enhances the ability of wheelchair users to independently operate a camera. The project integrated various technologies including 3D printing, stepper motors, and advanced control systems like Xbox controllers, motion detection, and computer vision.

Lessons Learned:

1. Interdisciplinary Collaboration: The project benefitted immensely from the collaboration between mechanical, electrical, and software engineering disciplines. Each field brought unique insights that improved the design and functionality of the prototype.

2. User-Centric Design: Direct feedback from potential users was invaluable. It guided many design decisions, ensuring the mount was not only functional but also user-friendly and accessible to people with different abilities.

3. Flexibility in Design: Using 3D printing allowed for rapid prototyping and customization, which was crucial for adapting the mount to different wheelchair models and user needs.

Recommendations for Future Work

Looking forward, there are several areas where future groups could enhance and extend our work:

1. Battery and Power Management:
   - Improvement: Develop a more efficient power management system to extend battery life, possibly integrating solar charging or more energy-efficient components.
   - Importance: This would reduce the frequency of charges needed and ensure the camera mount can be used for extended periods without interruption.
2. Advanced Control Methods:
   - Improvement: Further refine the computer vision and motion detection systems to improve their accuracy and ease of use.
   - Importance: Enhancing these controls would make the mount even more accessible, particularly for users with severe mobility restrictions.
3. Material Durability and Environmental Resistance:
   - Improvement: Experiment with more durable materials that can withstand various environmental conditions, such as water resistance for outdoor use.
   - Importance: This would enhance the mount's versatility and allow users to operate it in a wider range of scenarios.

Bibliography

APPENDICES

APPENDIX I: Design Files

MakerRepo Link:

https://makerepo.com/d0ppler/2048.openuv-universal-vision

OpenUV (Universal Vision) | MakerRepo (makerepo.com)

Table 3. Referenced Documents

Document Name	Document Location and/or URL	Issuance Date
Github Link	https://github.com/d0pplerAKA/Accessible-Camera-Operation	April 16th, 2024
MakerRepo	https://makerepo.com/d0ppler/2048.openuv-universal-vision	April 16th, 2024

APPENDIX II: Other Appendices