Project Scope Statement

I. General Information

Project name: MacroMancer Project number: 15984

Project Manager name: Alexander Shelton Date: 12/17/2024

II. Project Overview	*Describe the product or service of the project, the reason the project was undertaken, and the purpose of the project.*

This Project will deliver a Python-based application for Linux users to customize and control their Razer peripherals. It addresses the lack of official Razer Synapse support on Linux by enabling key remapping, macro recording/assignment, and lighting customization through integration with OpenRazer library.

III. Project Goals and Objectives	*Describe the project goals using the SMART (Specific, Measurable, Accurate and Agreed to, Realistic, Time Bound) formula. These goals will be used to measure and determine the project 's success at its conclusion.*

Specific

- **What**: *Develop a Python-based command-line software for Linux that enables customization of Razer peripherals.*
- **Why**: *Because Razer Synapse is unavailable on Linux, users lack the ability to remap key/buttons, record macros, and manage device settings.*
- **Who**: *Alexander Shelton will lead the development of this project.*
- **Where**: *The project will be developed on personal Linux machines and tested on supported Razer devices and different Linux distros.*
- **Which**: *No external funding; estimated personal investment for testing peripherals is up to $500. The project must be completed within 8 weeks.*

Measurable

- **Key Features to Deliver**:
    1. *Functional key/button reassignment system.*
    2. *Macro recording and assignment capabilities.*
    3. *Integration with OpenRazer to communicate with Razer devices.*
    4. *User configuration via JSON/YAML files.*
- **Testing Scope**:
    - *At least two supported Razer devices (e.g., keyboard and mouse).*
    - *At least two different Linux Distros.*
- **Success Criteria**

- *CLI tool runs without errors and performs all specified functionalities.*
- *Tested functionality with accurate results (e.g., macros and remapping).*

Accurate

- *The development timeline is set to 8 weeks to allow sufficient time for coding, testing, and debugging.*
- *OpenRazer's existing API and libraries will significantly reduce development complexity, making this timeline achievable.*

Agreed To

- *Project lead Alexander Shelton will handle all coding, testing, and delivery responsibilities.*
- *The project is aligned with the needs of Linux users seeking functionality like Razer Synapse.*

Realistic

- *The project will focus on essential features: key/button remapping, macro recording/assignment, and configuration.*
- *A command-line interface (CLI) ensures simplicity and feasibility within the timeline.*
- *Dependencies like OpenRazer are stable, reducing development risks.*

Time Bound

- **Start Date**: *12/17/2024*
- **Completion Date**: *02/11/2025 (8 weeks)*
- **Key Milestones:**
  - **Weeks 1-2***: Setup and OpenRazer integration.*
  - **Week 3-5***: Develop key remapping and macro recording features.*
  - **Week 6-7**: *Testing and debugging on Razer devices.*
  - **Week 8**: *Final documentation and delivery.*

IV. Comprehensive List of Project Deliverables	*These are the products or services that must be produced in order to fulfill the goals of the project. Deliverables should have measurable, verifiable results and outcomes. Identify critical success factors. Will map roughly to the work package Level of the WBS*

- Functional Python application for Linux.
- Macro recording and execution engine.
- Key/button reassignment functionality.
- User configuration system (JSON/YAML).
- Documentation for installation and usage.

V. Comprehensive List of Project Requirements	*Requirements are the specifications of the deliverables.*

- Integration with OpenRazer for device control.
- Macro recording capabilities using pynput or similar libraries.
- Configuration management via user-editable files.
- Compatibility with major Linux distributions.
- Documentation that can be easily read and understood by users.

VI. Exclusions from Scope	*List all deliverables or requirements that are not part of this project.*

- GUI-based interface (CLI only).
- Advanced RGB lighting effects beyond basic options.
- Compatibility with non-Razer devices.

VII. Time and Cost Estimates	*Include initial estimates of time and resources. These are estimates only and will be updated after additional project planning activities are completed.*

- Estimated Time: 8 weeks.
- Estimate Costs: $0-$500 (if testing required additional peripherals).

VIII. Roles and Responsibilities	*Include a roles-and-responsibilities chart, detailing project responsibilities.*

Project Manager:	Development, testing, delivery
Project Sponsor:	Scope approval and oversight
Stakeholders:	Testing and feedback

IX. Assumptions	*List all project assumptions.*

- OpenRazer will provide sufficient support for device communication.
- Testing will be conducted on Razer devices currently owned or available.

X. Product Acceptance Criteria	*List all project acceptance criteria.*

- Functional CLI that allows users to remap keys, record macros, and manage basic device settings.
- Successfully tested on supported Razer peripherals.

XI. Constraints	*List all project constraints.*

- Limited to CLI implementation.

- Limited to testing hardware availability.

XII. Signatures	*Include signature lines for the project sponsor, project manager, key stakeholders, customers, and vendors.*

Project Sponsor: *Alexander N. Shelton*

Project Manager: *Alexander N. Shelton*

Key Stakeholders: _____