

Project Initialization and Planning Phase

Date	21 October 2024
Team ID	739879
Project Title	Strain Analysis based on eye blinking
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	Develop a method to measure and analyzing facial muscle strain during eye blinking using computer vision
Scope	Data acquisition, image processing, strain analysis, data visualization.
Problem Statement	
Description	Eye strain is common; understanding eye blinking mechanics can aid in developing solutions.
Impact	Advance scientific knowledge, develop prectical applications for eye strain reduction.
Proposed Solution	
Approach	Data acquisition, image processing, strain analysis, data visualization.
Key Features	Robust measurements, comprehensive analysis user-friendly visualization.

Resource Requirements

Resource Type	Description	Specification/Allocation
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Hardware		
Camera	High resolution camera with precise focus and exposure control	e.g. upto 480k pixel
computer	Powerful workstation for image processing and analysis	e.g., intel core i5 windows 11
Software		
Frameworks	Python frameworks	e.g., Flask
Image processing software	Python based libraries	e.g., MATLAB, openCV
Development Environment	IDE, version control	e.g., spyder, Git
Data		
Data	Source, size, format	e.g., Kaggle dataset