# Group 4: Joshua Budd, Abdur Naveed, Ryan Keyser, Nathaniel Sullivan

# Project Description & Objectives

*Provide a description of the project, as your team understands it, and include any objectives of the project as well as objectives your team might desire.*

Patients who have suffered from a stroke can be lacking in fine motor skill abilities. The objective of the project is to help stroke patients recover their fine motor skills such as pencil skills, hand eye coordination and self care. Our team objective is to accomplish this by making this recovery process as fast and as fun as possible. We plan to do this by creating a game which will not only help progress their skills but also keep them engaged.

Requirements:

Functional:

* The program should have different exercises.
* Program should give back feedback to the user.
* The program should help users increase their abilities in the above activities.

Performance:

* There should be three different exercises.
* Feedback should either be visual, auditory, or both.
* Users’ performances in the above activities should increase by 10% in speed and 10% in consistency.

Constraints:

* The program must be a web based application using p5.js.
* The program must be completed before the due date.

# Project Deliverables

*Highlight all deliverables of the project. Anything that needs to be submitted or demonstrated counts as a project deliverable.*

The deliverables are our hands on app we are creating (finishing and completing design of app), the code on P5JS (Coding ran and tested multiple times and confirmed functional) and the project summaries (Overviews of the project in summaries from each group member). Other deliverables include the several Milestones: Defining the Exercises, Animate Shapes, Interact with Shapes, Interact with Shapes, Quality Assessment. The final deliverable is the demonstration of our application.

# Project Duration & Major Tasks

*State the time available for completion of the project, and be sure to include major tasks critical to the completion of the project.*

This project will span from Tues. Sept. 22 to Tuesday Dec. 1 (10 weeks). The critical tasks pertaining to the completion of this project:

1. Milestone 1 Defining the Exercises (Tues. Sept. 29)
2. Milestone 2 Animate Shapes (Tues. Oct. 20)
3. Milestone 3 Interact with Shapes (Tues. Nov. 3)
4. Milestone 4 Quality Assessment (Tues. Nov 17)
5. Product Demonstration (Tues. Dec. 1).

(All dates are in the year 2020.)

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|  |  | 9/29/20 | Brainstorming |
| 10/1/20 | Modeling and Systems | 10/6/20 | Design Proposal |
| 10/8/20 | Intro P5JS Programming | 10/13/20 | Implementation 1 |
| 10/15/20 | Critical Thinking Skills | 10/20/20 | Implementation 2 |
| 10/22/20 | Analysis | 10/27/20 | Implementation 3 |
| 10/29/20 | Simulation & Prototyping | 11/3/20 | Implementation 4 |
| 11/5/20 | Implementation and Testing | 11/10/20 | Implementation 5 |
| 11/12/20 | FAQ Day | 11/17/20 | Implementation 6 |
| 11/19/20 | Project Preparation | 11/24/20 | Implementation 7 |
| 11/26/20 | No Lecture - Thanksgiving | 12/1/20 | Demonstration |

# Project Customers & Stakeholders

*Identify all customers and stakeholders of this project.*

The customers are the stroke patients that will be using our application. The stakeholders of this project are the family, doctors, and physical therapists of those patients.

# Team Members & Roles

*State the team members, as well as the roles they might play on the team. Some examples of roles are Documentation, Robot Design, Robot Programming, and Project Manager.*

*Documentation/Quality Assurance -* Abdur Naveed

*Designer -* Ryan Keyser

*Programmer -* Nathaniel Sullivan

*Project Manager-* Joshua Budd