Senior Design 491 Weekly Report 6

Date : 10/23/2017

sdmay18-10: Patch-clamp microchip testing circuit interface

Client & advisor : Que Long

Team member & Roles :

---- Chenhang Xu - team communication leader

---- Daiyuan Ding - team webmaster

---- Li Qian - team leader & time keeper

---- Junhua Hu - Team designer

---- Ningyuan Zhang - team programmer

---- Yigao Li - team test leader

Weekly summary :

Regular meeting with advisor and Starting setting up the prototype interface through PC-ONE.

Past Week Accomplishments

Member name	Accomplishments
Chenhang Xu	Read the manual about speed test for it is the way to test the cell current. Try to set up the whole system and let it work in the following weeks.
Daiyuan Ding	Understood the basic steps to setup the PC-ONE within the speed test mode, preparing the steps instructions for setting and operating the PC-ONE.
Li Qian	Reading the document of PC-ONE, trying to set the equipment and doing some basic test. Wrote weekly report, and finished first version of design document and the second version of project plan.
Junhua Hu	Getting familiar with PC-ONE equipment, and understanding the setups. Preparing for next meeting with instructor, and going to present the equipment setup to make sure we could use PC-ONE safely. Finishing the project plan V2.
Ningyuan Zhang	Knowing specs of PC-ONE and set the defaults for speed test mode. Test the PC-ONE with silicon liquid to ensure the reading was correct. Obtain the power supply for PC-ONE. Draft weekly report. Finish the first design document and the second project plan.
Yigao Li	have a general impression of PC-one within the speed test mode, figure out the function of each button and know how to set up each button.

Pending issues

Member name	Accomplishments
Chenhang Xu	Perapare the slide about the set up steps, which need to present to our professor.
Daiyuan Ding	Need to finish the detailed instructions for setting up the PC-ONE.
Li Qian	Know the basic setting up of the PC-ONE equipment and present to the instructor.
Junhua Hu	Getting information about the module circuit, trying to understand how the circuit works.
Ningyuan Zhang	Still need the neurons to test the following data.
Yigao Li	need some more equipment to set up

Individual contribute

Name	Individual Contributions	Hours this week	Hours Cumulative
Chenhang Xu	Read the document about every part of PC-one. Trying to set up the entire system and do the speed test to reduce the noise.	6	17
Daiyuan Ding	Working with teammates on project plan and design documents. Contributed to setting up the PC-ONE.	5	19
Li Qian	Reading the document of PC-ONE, and learn the basic setting up the equipment. Working on the project plan and project document.	4	19
Junhua Hu	Reading the advanced document about module circuit to prepare setting up the circuit, and PC-ONE manual. Making PPT with group members to show our understanding to instructor.	1	23

Ningyuan Zhang	work with group members to finish the design document and project plan. draft weekly report for the group. get the PC-ONE connected.	**5**	**5**
Yigao Li	Reading the manual about speed test to prepare the set up. working with members on project plan and design documents.	**3**	**3**

Comments and Extended Discussion

We had great step forward this week: we started to actually test our prototype of the interface with PC-ONE. Though we still need more information and data to test the stability and accuracy of the interface, the connection and environment was built.

Plan for Coming Week

Getting accurate data through multiple test. Trying to test the neuron under different variables. Doing research about correct region of reading from oscilloscope.

Summary of Weekly Advisor Meeting

We met with advisor regularly and started to build up the interface prototype with default parameters and variables. We got several set of data which we did not know the correctness, and we still needed to do more data collection and research to increase the accuracy of results.