Building a 3D Micro-Manufacturing System using Digital Micromirror Device

BI-WEEKLY 3 REPORT

August 2019 – May 2020

Client &/Advisor: **Meng Lu**

Team members:

Tong Di - Software

Di Meng - Hardware

Yu Cheng – Hardware

Shengpu Zou – Hardware

Haolun Ping- Software

Past Week Summary

On the Hardware side, we are still working on the construction of the printing platform. On the software side, we are trying to solve the Labview code problems for motorized stage.

Past Week Accomplishments:

• Get the controller of MP-285 for Labview from the company.

• Finished 3D wrapping box model in Solidworks

• Write BI-Weekly report 3

Pending Issues:

• Technique skills in creation workshop

• MP-285 motorized stage connection issue

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Individual Contributions:

Name	Contributions	Weekly hours	Cumulative Hours
Tong Di	Investigating the connecting problem of MP-285 motorized stage with Labview client.	13	79
Di Meng	Design a couple of models in creation workshop and work on the analysis. Contact ETG to request the 3D wrapping box model of Solidworks.	12	76
Yu Cheng	Design a couple of models in creation workshop and work on the analysis. Contact ETG to request the 3D wrapping box model of Solidworks.	12	76
Shengpu Zou	Test the spectrum of our light source, and select the filter we may use. Test the 420nm cure resin with our DLP projector.	15	73
Haolun Ping	Make a phone call directly to the company "Sutter Instrument", and have a talk with staff. And the staff sends me the controller of MP-285 on Labview. After that do the test on the connection between software and hardware.	13	77

Plans for the upcoming week:

Tong Di - Solve the connection problem and program testing code.

Yu Cheng - Keep eyes on printing out the 3D wrapping box stereotype by contacting ETG. Test the printed wrapping box to see if it can fit our projector, adjust the parameter of the hole that enables the light to go through and fix it in the motorized stage.

Di Meng - Keep eyes on printing out the 3D wrapping box stereotype by contacting ETG. Test the printed wrapping box to see if it can fit our projector, adjust the parameter of the hole that enables the light to go through and fix it in the motorized stage.

Shengpu Zou - Try different types of resins. Adjust the alignment issue. Rebuild optical path.

Haolun Ping - Keep working on Labview. After finishing the connection between software and hardware, do some simple tests, such as move the motorized stage in different directions by using software.