

**Date:** February 28th, 2020

**Room:** FF 313

**Leader:** Clement

**Secretary:** Sofia

**Attendance:**

Individual	In Attendance
Catherine Greenwood	Y
Jenna Moledina	Y
Clement Asiedu-Antwi	Y
Isabela Taketa	Y
Aleisha Cerny	Y
Sofia McGurk	Y

**Agenda:**

1. Status Update
2. Hardware Update
  - a. Comments on the design & Printing the stand

C: print design next week... Do you have any comments on the design for us?

C: How it works is the device hooks onto the printer, we have already printed the left hand side of the part- we just need approval to print the rest.

Daan: Mock it up with cardboard to see if it will do what we think it will... then proceed with the printing. Cables and wires will pull the part to the side, and you need to make sure it can resist it.

Daan: Think about how long you want the pins to be (don't have to be quite that long).

C: done to offset the part and keep it in place.

Daan: Good function but not sure they need to be quite that long.

- b. Reviewing selected laser and camera options

J: MTO laser \$70, red laser... and the camera- usb and python compatible- use gopro (python library for gopro). Newer models allow for linear field of view.

Daan: Don't think the gopro is a good option

Daan: machine vision camera on electron beam furnace in AMPEL. Don't know what happened to it- have messaged Jin to see what happened to it. He is pretty certain that this can be Python compatible.

Daan: Go ahead with the laser- buy it yourself and get reimbursed or bring order down to Marlin in stores and he will order it (Say it is for one of the projects that Daan is running).

Daan: We have a camera. It currently has a zoom lense on it- long lense.

J: Currently being used?

Daan: No- stored in AMPL (we went to go see it and will be able to make use of it when we need to).

### 3. Software Update

#### a. Printcore software; algorithm update

Cat: Last meeting- converting g-code into dimensional height data- current code contains a bug. At one x position this is a cross section, only plotted some of the layers (showed the Excel file). You can see the shape of the printing layers but also the movement of the nozzle (bug).

#### b. Next steps

Cat: Straighten laser, control laser, write software combines all of the data (for analysis).

Daan: We are on the right track

Cat: Printcore works to control the printer! Have to know all of the things you need to call (library)- that was the hard part of software setup.

### 4. Review table of tasks/Gantt Chart and modify

C: Only March left in the semester. Our dimensional data extraction stuff is done. We will include building a mock up and integrating all the codes in week 8. Then, after that point we will be debugging and testing our system.

#### Action Items:

	Item	Assigned To
1.	Integrate all of the codes we currently have	All
2.	Create a mock up out of cardboard of the printing stand	All
3.	Print the stand	All

**Next Meeting Time: Friday March 6th 2020 @ 11:00 am**