Logbook

From: 21/09/2020 To 30/10/2020

Month	List the main activities (only a few words per activity)	Interaction with the supervisor			Any other form of supervisory interaction (second supervisor, industry, fellows etc.)
		Number of meetings	Mode of the meeting (face-to-face, online e.g., Skype, WeChat etc.)	Number of emails exchanged	
9	1. Meeting with supervisor	1	Zoom	6	
10	1. Brief Research 2. Meeting with supervisor	1	Zoom	4	

Meeting Notes 1

2020年9月23日 20:00

Meeting Method: Zoom (online video calling), **Date:** 09/23/2020, **Time:** 11:00 GMT (19:00 Beijing Time)

Items for discussion (noted by student before supervisory meeting)**:**

1	Details of the project
2	Time schedule for the submission

Record of discussion of supervisory meeting:

1	The project is to build an optical spectrometer based on a USB camera that can measure the light spectrum at different wavelength and showing the frequency spectrum.
2	The time schedule can be found on Moodle.

Action list (to be attempted or completed by student by the next supervisory meeting)**:**

1	Do some brief research about the spectrometer, its principle and its basic structure.

Time schedule:

| Project Component	Weight	Deadline	Submission Method	Responsible
Project Specifications & Preliminary Report and 1st logbook		Friday, 30th Oct 2020 23:59 CST	Moodle	Student
Project Specifications & Preliminary Report (Grading) - Resources request approval	5%	Friday, 20th Nov 2020	Moodle/Blackboard + MS Forms	Supervisor
Interim (Mid Project report) and 2nd logbook + Risk Assessments + Ethics		Monday, 04th Jan 2021 23:59 CST	Moodle	Student
Interim (Mid Project report) (Grading)	5%	Friday, 22nd Jan 2021	Moodle/Blackboard + MS Forms	Supervisor
Final Report and 3rd logbook		Friday, 23rd April 2021 23:59 CST	Hardcopy handover and softcopy through Moodle	Student
Student Performance Evaluation	10%	Friday, 23rd April 2021	Moodle/Blackboard + MS Forms	Supervisor
FYP software codes, prototyping/equipment		Friday, 23rd April 2021 23:59 CST	Software codes, hardware and equipment submission and storage	Student & GC-UESTC
Final Report (Grading)	50%	Friday, 14th May 2021	Moodle/Blackboard + MS Forms	Final Report Panel
PowerPoint slides for oral presentations		Friday, 07th May 2021 12:00 CST	Moodle	Student
Oral presentations	30%	Monday, 10th- Friday, 14th May 2021	Panel presentations + MS Forms	Oral Presentation Panel

来自 <https://moodle.gla.ac.uk/course/view.php?id=21109>

Brief Research 1

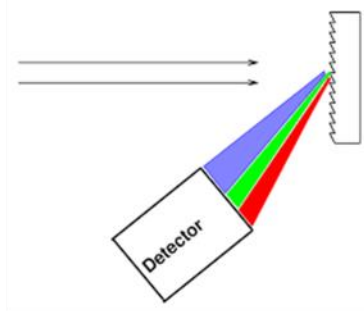**Date:** 10/26/2020, **Time:** 13:00 GMT (21:00 Beijing Time)
I have made some search online and got better understanding about the project.

The basic idea of the Optical spectroscopy is actually doing fourier transform on the incoming light signal, transformating it in to frequency domian.
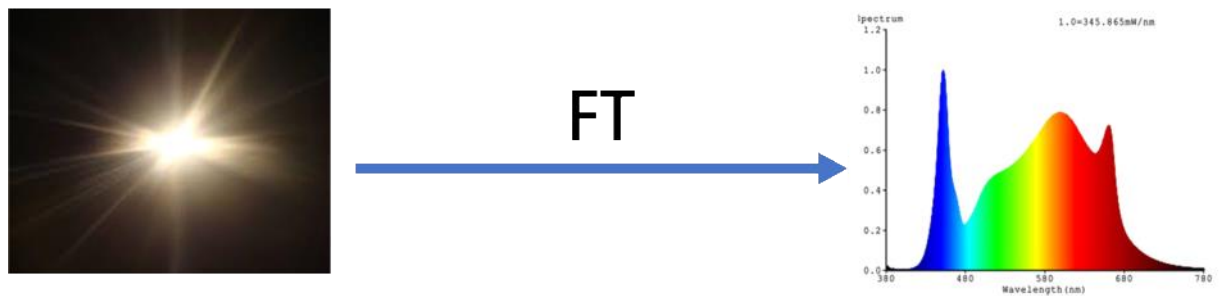

However the visual light's frequency is around several Tera Hertz and it is impossible for a typical electronic device to sample on this high frequency. So we want to use some optical instrument to separate the wide-band light signal into many narrow-band so that we can estimate the power spectrum on each frequency.

To achieve this, we usually use two instrument: diffraction grating and prism and in this project I am request to use the diffraction grating.
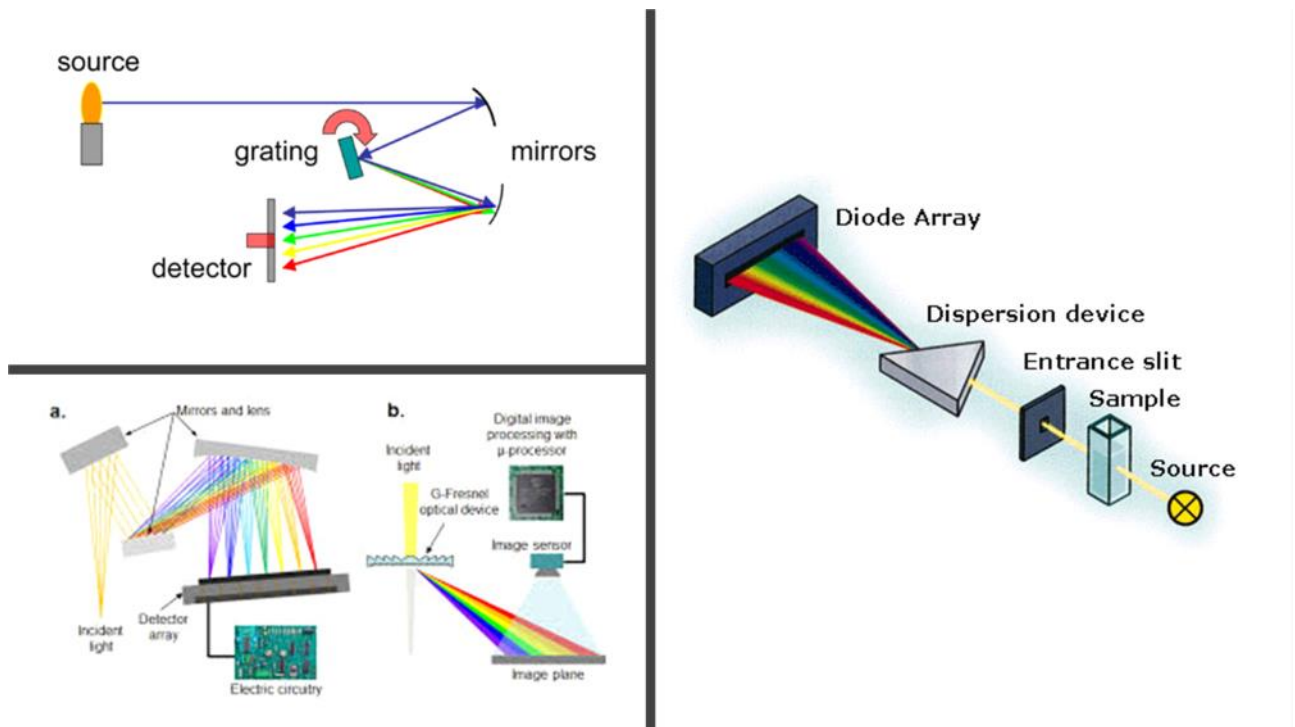

Diffraction Grating
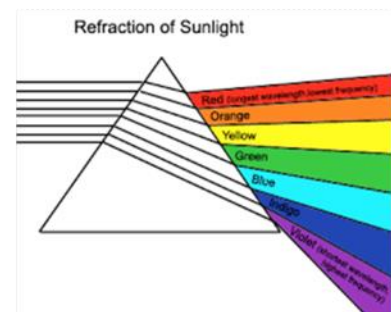
Prism

Then I did some search online, and found some basic design structure below:

Meeting Notes 2

Meeting Method: Zoom (online video calling), **Date:** 10/27/2020, **Time:** 14:00 GMT (22:00 Beijing Time)

Items for discussion (noted by student before supervisory meeting)**:**

1	Show my brief research about the project to the supervisor.
2	Ask about the tangible tasks, targets, outcomes and other detials which will be written in the preliminary report.

Record of discussion of supervisory meeting:

1	The supervisor confirm my brief research.

2	The main tasks are:
	    1. Design and choose the diffraction grating
	    2. Design and choose a CCD camera
	    3. Build the software for data processing
	    4. Build a graphical user interface
	The measurable outcomes are:
	    1. A fully functional spectrometer with a USB interface.
	    2. A software with GUI to show the light spectrum.

Action list (to be attempted or completed by student by the next supervisory meeting)**:**

1	Finish the resources list and Risk Assessment Form