SECTION C
Weekly Journal

Instruction to Student:

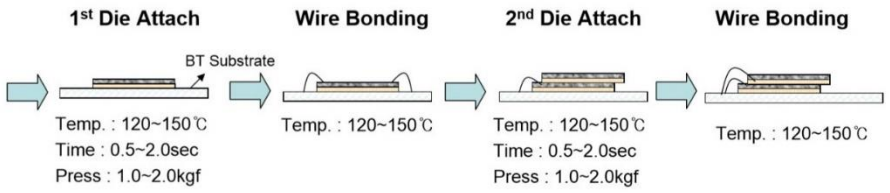
1. On a daily basis, record the specific task that you carried out for that day.
2. At the end of every week, describe one task in more details with diagrams or photos attached.

Week : 1 Date from: 11/3/2024 to 15/3/2024

Department/Section Attached: Assembly Metrology

Day	Tasks Record
Monday	On my first day of intern, I spent most of my time completing administrative task such as signing of contracts. Once I received my laptop, I began doing my Global Electrostatic Discharge (ESD) training so I will be able to enter the assembly line and cleanrooms. I had lunch with the other interns to familiarize with one another. I met up with my supervisor, where he gave me a tour of the assembly line which is under my department. There I learnt the processes conducted in the assembly line and the inspection methods. • CR1, Wafer thinning, wafer saw (blade dicing & laser groover), inspection , flip chip attach , underfill
Tuesday	Throughout the day, I had to complete multiple online trainings assigned by Micron such as how to handle lots, do and don'ts of the clean room, safety procedures and trainings for Micron. • Understood further of the assembly process in MSB. • Learnt about Stealth Dicing which is an internal processing. • Found out more about die stacking and wire bonding. • Read up on encapsulation and the ball attach process.
Wednesday	• Completed all e-learning task by Micron. • Understood the importance of workspace code of conduct. • Studied the first half of slides provided by my supervisor on the flip chip process
Thursday	• Studies the second half of slides on the flip chip process, and possible defects from the process • Went into the Mold room to view the Singulation process of the Strip. • Views post-singulation inspection process such as ball scrap and OS Testing
Friday	• Started conducting a business analysis of Micron and its competitors in the industry • Understood the overall macroenvironmental factors that could affect Micron's operation both positive and negative. • Attended the Bi-weekly metrology meeting together with technicians. • Attended the sharing by project teams of their PDCA project aimed to improve the workload and cost of production for Micron by implementing automation idea and mechanical solutions.

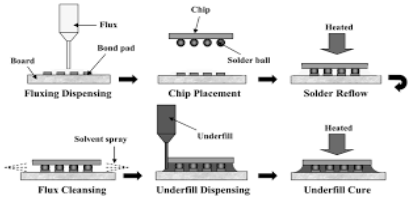
Describe one task in more details with diagrams or photos attached.
Explain the importance/relevance of this task to the company.



Source: Skymart Group

On Monday, I went into the cleanroom to have a tour of the assembly process here in Micron. There I learnt about a few processes such as wafer thinning which use a diamond blade to grind away the silicon material to get the die to the desired thickness, Laser Groove which cut along the edges of each die to separate the wafer into singular die for the next process of attaching the die to the substrate.

There are two kinds of die attach processes, Wire Bond and Flip Chip. Wire bonding is done using gold wire due to its high conductivity and excellent resistance to corrosion. The die can also be stacked to fit its desired construction with a film in between each layer of die.



The next process is called flip-chip. Flip Chip as the name suggest involves flipping the die and placing it onto the substrate. Each chip contains small solder bumps to bond with the connection pads on the substrate. This process is much faster than the wire bond process, hence more efficient in its process.

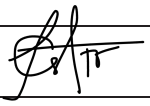
By understanding the processes happening in the assembly line, I will be able to suggest improvements to the system to increase reliability and efficiency of assembly during subsequent visits and meetings. Additionally, it is crucial as a new team member to understand the departments task quickly to be helpful to the team.

Assessment on Student

Grading Scheme :

A (Excellent)	-	Consistently exhibit qualities beyond expectation and norms.
B+ (Very Good)	-	Exhibit qualities above expectation and the norms.
B (Good)	-	Exhibit qualities which are considered necessary to produce good quality work.
C+ (Good Credit)	-	Exhibit good qualities which are the norm.
C (Credit)	-	Exhibit acceptable qualities which are the norm.
D (Pass)	-	Exhibit qualities which varies between the norm and unacceptable standard.
F (Fail)	-	Exhibit qualities which are not acceptable and are hindrances to operations.

Conduct:	A	Attendance: A	* Regular / Average / Poor
Performance :	A	Punctuality: A	* Satisfactory / Unsatisfactory

Remarks :			
Name of Supervisor :	Francis Castro	Signature :	
*Delete whichever is not applicable		Date :	March 15, 2023