



## MSC 2022: COMPUTATIONAL THINKING FOR PROBLEM SOLVING

STUDY SESSION: SEMESTER 1 (2021/2022)

**GROUP NAME:** A (3)

## (GROUP TASK)

**FAIRPHONE 4: WHY DO WE NEED THIS?** 

## YOUTUBE/VIDEO LINK:

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COMPUTATIONAL THINKING PILLAR	MAIN POINTS
1. Decomposition	<ul> <li>Why did the manufacturer create the Fairphone 4?</li> <li>The Fairphone 4 was created as a result of the troubles they had with their prior phone, and they have improved and rectified all of the issues they had with that previous phone.</li> <li>Normal phone will get a lot of problems when the phone gets damaged but not for a fairphone 4.</li> <li>Other phones do not have a future like fairphone do, like decreased e-waste.</li> </ul>
2. Pattern recognition	<ul> <li>What is the similar component that can work together and combine together in order to module it in a way that the user can replace it without touching other parts?</li> <li>The fairphone 4 has all of the phone's hardware constructed independently to save money in the event that the phone's hardware is damaged.</li> <li>What is the best way to compile this part together either using very screw and glue? Or just using the same pattern and size of the Philip screw for all?</li> <li>The fairphone already not using a glue or complicated screw for the installation, so no need to worry about the hardware integration in this phone.</li> <li>Is all of the component need to build by ourself or make pattern and give to other factory to build some part of it?</li> <li>For this fairphone 4, they manufactured they phone with very simple installation, so you can just do it yourself without going to another store.</li> </ul>

## 3. Abstraction Why is the Fairphone not a complex phone for users? Firstly, many spare components for the fairphone may be found at any electronics store, including the fairphone store itself. Fairphone's CEO has also ensured that the spare component for this phone will be available for a long time. Secondly, the Fairphone does not require any glue or complicated screws for installation, making it easily accessible and replaceable. The proof is that all parts of this phone can be repaired by the user and it can lower user costs because there is no need to visit an electronics store just to replace a broken part in this phone. Furthermore, this fairphone features a strong chipset, large storage, 5G network compatibility, stereo speakers, several cameras with a lot of functionality, a 4000 mah battery, and fast charging up to 20 watts, yet it is extremely simple to use and not a complex phone. This gives the Fairphone precisely the appropriate amount of realism and abstraction. Not too realistic and not too abstract. 4. Algorithmic Start Thinking The manufacture of this fairphone 4 specially for user comfortable based sustainable, modular, repairable, and upgradable. This fairphone 4 is manufactured with recycled materials. If the Fairphone 4 is needed to repair, then the user can repair it easily by themself because no part that is permanently glued and this fairphone 4 not using a complex screw. If this fairphone 4 had a damage, then the user has the option to recycle and reused or just repair it. End