**Project P5 - Project Design**

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The primary goal of our group’s project P5 will be to design a simple application that allows the sending of files securely between Android phones using both the Bluetooth and Wifi-Direct connection technologies. The internal application design idea is to design the application in such a way that it is connection-agnostic, allowing the same base code to be used while swapping between Bluetooth and Wifi-Direct connection code. The end result will focus on code reuse while using both technologies. The role assignment so far has Nick Forquer as Base Application Lead, William Greer as Key Sharing Lead, Gerard Puhalla as Wifi-Direct Lead, and Trevor Rambacher as Bluetooth Lead. The execution plan for the project is to start with the basics of Android, and then move towards making a connection between 2 phones. Once a connection can be reliably established, the next step will be doing a full file transfer between phones. Each successive step afterword will be increasing the security of the connection and file transfer between the phones. This will be done through various encryption methods including building the Diffie-Hellman key agreement between the phones.