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| **Group** 8 | **Death Star Image Exfiltration** |
| **Major:** | **Team members:** |
| EE | Nicholas Michael |
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**Design Functionality**

1. Receive the USB drive with the 100 1024x1024 PNG images

* The provided USB will have 100 PNG images
* 10 of which, will be of the death star with a dark background and a red-circled weakness

1. A provided Raspberry PI will read the images on the USB

* The Raspberry PI will be able to interpret and load the images

1. The Raspberry PI will filter out the 10 death star images

* The non death star images will be ignored for the remaining steps

1. The images will be transmitted to a Linux server, on the other side of a physical wall, 5 meters away from the wall.

* The images will be encrypted while being transmitted
* The images will be sent over 2.4 GHz frequency

1. The Linux Server will verify the images arrived unaltered with a MD5 checksum

* If the checksums do not align, they Raspberry PI will resend them until everything aligns

1. The Linux Server will crop and isolate the 10 red-circled images

* The death star images each contain a weakness meaning there are 10 in total

1. The weaknesses will be uploaded to a mobile application (iOS or Android) and publicly displayed

* Weakness images will be uploaded over Wi-Fi
* Thus, the project is complete

