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| Group 12 | *Exfiltrate & Disseminate Death Star Plans* |
| **Major:** | **Team members:** |
| CEG | Kalen Tullis |
| ITC | Simran Cheema |
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**Summary Tables of Test Results**

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| Requirement | Test Date | Test and Evaluation Location | Result | Notes | Date Passed (Accepted) |
| 1 | 1-22-25 | Student Success Center | The Pi LED is lit up | Checked when PiOS was installed | 1-22-25 |
| 2 | 1-22-25 | Student Success Center | The server Pi boots up to PiOS | Both Pis boot up correctly | 1-22-25 |
| 3 | 2-11-25 | Russ room 153 | Add default content to mobile app | The mobile app can display the world Hello world on the screen. | 2-11-25 |
| 10.1 | 2-18-25 | Student Success Center | Python recognizes all installed libraries | Both Pis have python libraries installed | 2-18-25 |
| 10.2 | 3-18-25 | Russ lab | Image recognition software identifies PNG format images. |  | 3-18-25 |
| 10.3 | 3-18-25 | Russ lab | Given a Death Star image the software will recognize the Death Star |  | 3-18-25 |
| 10.4 | 3-18-25 | Russ lab | Given a non-Death Star image the software will recognize it as a non-Death Star image. |  | 3-18-25 |
| 10.5 | 3-18-25 | Joshi 367 | Given a pool of 100 images the software can identify the images containing the Death Star. | 90% accuracy rate given | 4-15-25 |
| 11 | 4-8-25 | Joshi 367 | Image size can be reduced | Images are reduced to surround the red circle | 4-8-25 |
| 11.1 | 4-8-25 | Joshi 367 | Images are reduced to the red circle | Images still contain the red circle | 4-8-25 |
| 20.1 | 2-20-25 | Russ Lab | The two Pis can communicate with each other | The receiver Pi will act as server. | 2-25-25 |
| 20.2 | 3-4-25 | Russ Lab | The transmitter can send data packets to receiver |  | 3-4-25 |
| 20.3 | 3-11-25 | Russ Lab | Receiver can receive data packets from transmitter |  | 3-11-25 |
| 20.4 | 4-8-25 | Joshi 367 | Receiver receives data packets from transmitter |  | 4-8-25 |
| 20.5 | 4-8-25 | Joshi 367 | Transmitter will send images over data  packets to receiver |  | 4-8-25 |
| 20.6 | 4-8-25 | Joshi 367 | Server can  Communicate back  to receiver |  | 4-8-25 |
| 21 | 4-8-25 | Joshi 367 | Transmission fails  when connection is  blocked | Failed |  |
| 22 | 4-8-25 | Joshi 367 | Transmission fails when distance is too large | Failed at 3+ meters |  |
| 23 | 4-8-25 | Joshi 367 | Images take longer than 1 minute to transmit | Average transmission time is 2 minutes |  |
| 23.1 | 4-8-25 | Joshi 367 | Transmitting 10 images takes longer than 10 minutes. | Average transmission time is 20 minutes |  |
| 24 | 4-8-25 | Joshi 367 | All standards in the standards table are conformed to |  | 4-8-25 |
| 30.1 | 4-10-25 | Joshi 367 | The transmitter and server use the  same checksum  package |  | 4-10-25 |
| 30.2 | 4-10-25 | Joshi 367 | The transmitter and server can  communicate to  Each other |  | 4-08-25 |
| 31.1 | 4-10-25 | Joshi 367 | Checksums can be compared |  | 4-10-25 |
| 31.2 | 4-10-25 | Joshi 367 | Images can be  resent |  | 4-20-25 |
| 31.3 | 4-15-25 | Joshi 367 | Server can recognize failed images based on the checksum  images. |  |  |
| 40.1 | 4-8-25 | Joshi 367 | Transmitter will  encrypt image data packets |  | 4-8-25 |
| 40.2 | 4-8-25 | Joshi 367 | Receiver can  decrypt received  data packets |  | 4-8-25 |
| 50 | 4-17-25 | Russ Lab | Mobile app launches on Android OS |  | 4-8-25 |
| 51 | 4-17-25 | Russ Lab | When launched the app will display images |  | 4-8-25 |
| 60 | 3-25-25 | Russ room 153 | Mobile app to support grid images | The mobile app can display the images on the screen | 3-25-25 |
| 61 | 4-17-25 | Russ Lab | Mobile app displays the cropped images |  | 4-17-25 |
| 70 | 4-17-25 | Russ Lab | Mobile app displays images hosted on the server |  | 4-17-25 |
| 80 | 1-14-25 | Student Success Center | The price of materials does not exceed $300 | The Total cost of materials was $116.07 | 1-14-25 |

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| Constraint | Test Date | Test and Evaluation Location | Result | Notes | Date Passed (Accepted) |
| 10 | 4-8-25 | Joshi 367 | Transmitting 10 images takes longer than 10 minutes. | Average transmission time is 20 minutes |  |
| 20 | 4-8-25 | Joshi 367 | Transmission fails when distance is too large | Failed at 3+ meters |  |
| 30 | 4-8-25 | Joshi 367 | All standards in the standards table are conformed to |  | 4-8-25 |
| 40 | 1-14-25 | Student Success Center | The price of materials does not exceed $300 | The Total cost of materials was $116.07 | 1-14-25 |
| 50 | 4-17-25 | Russ Lab | Mobile app launches on Android OS |  | 4-8-25 |
| 60 | 4-8-25 | Joshi 367 | All communication is done over RF  signals | Use of the cc1101  chip | 4-8-25 |
| 70 | 2-25-25 | Russ lab | The transmitter has no physical connection to the server. | All communication is done wirelessly with short-range radio. | 2-25-25 |
| 80 | 1-22-25 | Student Success Center | Both Pis run on PiOS | PiOS is a Linux OS | 1-22-25 |
| 90 | 4-8-25 | Joshi 367 | The process can be done with an open USB port available  on the transmitter | Port is available for  the thumb drive  containing the  photos. | 4-8-25 |
| 100 | 4-10-25 | Joshi 367 | Data packets are  encrypted by the  transmitter |  | 4-10-25 |
| 110 | 4-17-25 | Russ Lab | Mobile app displays images hosted on the server |  | 4-17-25 |

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| Standard | Test Date | Test and Evaluation Location | Result | Notes | Date Passed (Accepted) |
| 10 | 4-8-25 | Joshi 367 | Consistent IEEE  terminology is used |  | 4-8-25 |
| 20 | 4-8-25 | Joshi 367 | Data is successfully transferred between systems |  | 4-8-25 |
| 30 | 4-8-25 | Joshi 367 | Data encryption is secure and prevents unauthorized access |  | 4-8-25 |
| 40 | 4-8-25 | Joshi 367 | Frequency of  transmission falls  within acceptable  range |  | 4-8-25 |
| 50 | 4-8-25 | Joshi 367 | WPAN functions within the acceptable range |  | 4-8-25 |
| 60 | 4-8-25 | Joshi 367 | Transmission is  Done with low  power |  | 4-8-25 |
| 70 | 4-8-25 | Joshi 367 | Transmitter  operates within local connectivity  requirements |  | 4-8-25 |
| 80 | 4-8-25 | Joshi 367 | Compression achieves fast, lossless image transmission. |  | 4-8-25 |