

| Name | | Work | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Deadlines | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Opening lecture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| First progress seminar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Second progress seminar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final presentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquire Equipment | | 50d 1h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquire working camera | | 23d 1h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquire Schematic Parts | | 17d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquire final payload controller | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquire autopilot and basestation | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload Module | | 71d 2h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Camera module communication | | 8d 4h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prototype camera module communication | | 5d 4h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload controller <-> camera module communication | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Image Encoding and Transmission | | 39d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basic JPEG encoding | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload controller implementation | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Custom (compressed) encoding | | 10d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Matlab algorithm prototype | | 10d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JPEG Reordered Payload controller implementation | | 24d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Huffman Table Build | | 2d 4h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Huffman Encoding/Decoding | | 2d 4h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Extract JPEG header and payload data | | 19d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload module construction | | 23d 6h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload breadboard prototype and debugging | | 5d 6h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload stripboard construction and debugging | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload PCB design | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquiring payload PCB | | 5d 6h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload PCB construction and debugging | | 4d 1h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Image recieve/viewing software | | 15d 2h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TCP/IP Basestation Communications | | 7d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basic dummy server communication | | 4d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basestation communications | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Decode Image | | 2d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basic image decoding | | 2d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UI | | 6d 2h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Functional user interface | | 6d 2h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integration | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload controller to autopilot/base station | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Background Research | | 19d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Camera selection | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Payload controller (e.g. microcontroller/FPGA) selection | | 4d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Communication protocols | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Image processing/compression | | 6d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Programming language | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare presentation | | 10d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Progress seminar 1 | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Progress seminar 2 | | 3d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final presentation | | 4d | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Report Writing | | 13d 1h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Whole System Testing | | 5d | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| WBS | Name | Start | Finish | Work | Duration | Slack | Cost | Assigned to | % Complete |
|---------|--|--------|--------|--------|----------|--------|------|-------------|------------|
| 1 | Deadlines | 5 Oct | 11 Jan | | 84d | | 0 | | 0 |
| 1.1 | Opening lecture | 5 Oct | 5 Oct | N/A | N/A | 84d | 0 | | 0 |
| 1.2 | First progress seminar | 26 Oct | 26 Oct | N/A | N/A | 66d | 0 | | 0 |
| 1.3 | Second progress seminar | 30 Nov | 30 Nov | N/A | N/A | 22d 5h | 0 | | 0 |
| 1.4 | Final report | 15 Dec | 15 Dec | N/A | N/A | 23d | 0 | | 0 |
| 1.5 | Final presentation | 11 Jan | 11 Jan | N/A | N/A | | 0 | | 0 |
| 2 | Acquire Equipment | 5 Oct | 1 Nov | 50d 1h | 23d 1h | 60d 6h | 0 | | 0 |
| 2.1 | Acquire working camera | 5 Oct | 1 Nov | 23d 1h | 23d 1h | 35d 6h | 0 | | 0 |
| 2.2 | Acquire Schematic Parts | 5 Oct | 24 Oct | 17d | 17d | 43d | 0 | | 0 |
| 2.3 | Acquire final payload controller | 17 Oct | 21 Oct | 5d | 5d | 45d | 0 | | 0 |
| 2.4 | Acquire autopilot and basestation | 5 Oct | 10 Oct | 5d | 5d | 72d | 0 | | 0 |
| 3 | Payload Module | 5 Oct | 5 Dec | 71d 2h | 53d | 27d | 0 | | 0 |
| 3.1 | Camera module communication | 1 Nov | 10 Nov | 8d 4h | 8d 4h | 48d 2h | 0 | | 0 |
| 3.1.1 | Prototype camera module communication | 1 Nov | 7 Nov | 5d 4h | 5d 4h | 35d 2h | 0 | | 0 |
| 3.1.2 | Payload controller <-> camera module communication | 7 Nov | 10 Nov | 3d | 3d | 35d 2h | 0 | | 0 |
| 3.2 | Image Encoding and Transmission | 5 Oct | 22 Nov | 39d | 42d | 38d | 0 | | 0 |
| 3.2.1 | Basic JPEG encoding | 10 Nov | 16 Nov | 5d | 5d | 43d 2h | 0 | | 0 |
| 3.2.1.1 | Payload controller implementatation | 10 Nov | 16 Nov | 5d | 5d | 35d 2h | 0 | | 0 |
| 3.2.2 | Custom (compressed) encoding | 5 Oct | 15 Oct | 10d | 10d | 70d | 0 | | 0 |
| 3.2.2.1 | Matlab algorithm prototype | 5 Oct | 15 Oct | 10d | 10d | 70d | 0 | | 0 |
| 3.2.3 | JPEG Reordered Payload controller implementation | 1 Nov | 22 Nov | 24d | 19d | 38d | 0 | | 0 |
| 3.2.3.1 | Huffman Table Build | 3 Nov | 5 Nov | 2d 4h | 2d 4h | 49d 4h | 0 | | 0 |
| 3.2.3.2 | Huffman Encoding/Decoding | 5 Nov | 8 Nov | 2d 4h | 2d 4h | 50d | 0 | | 0 |
| 3.2.3.3 | Extract JPEG header and payload data | 1 Nov | 22 Nov | 19d | 19d | 38d | 0 | | 0 |
| 3.3 | Payload module construction | 1 Nov | 5 Dec | 23d 6h | 29d 6h | 27d | 0 | | 0 |
| 3.3.1 | Payload breadboard prototype and debugging | 1 Nov | 7 Nov | 5d 6h | 5d 6h | 36d | 0 | | 0 |
| 3.3.2 | Payload stripboard construction and debugging | 8 Nov | 10 Nov | 3d | 3d | 48d | 0 | | 0 |
| 3.3.3 | Payload PCB design | 8 Nov | 12 Nov | 5d | 5d | 36d | 0 | | 0 |
| 3.3.4 | Aquiring payload PCB | 24 Nov | 30 Nov | 5d 6h | 5d 6h | 27d 1h | 0 | | 0 |
| 3.3.5 | Payload PCB construction and debugging | 30 Nov | 5 Dec | 4d 1h | 4d 1h | 27d | 0 | | 0 |
| 4 | Image recieve/viewing software | 5 Oct | 25 Nov | 15d 2h | 45d | 35d | 0 | | 0 |
| 4.1 | TCP/IP Basestation Communications | 5 Oct | 13 Oct | 7d | 8d | 72d | 0 | | 0 |
| 4.1.1 | Basic dummy server communication | 5 Oct | 8 Oct | 4d | 4d | 76d | 0 | | 0 |
| 4.1.2 | Basestation communications | 11 Oct | 13 Oct | 3d | 3d | 72d | 0 | | 0 |
| 4.2 | Decode Image | 16 Nov | 18 Nov | 2d | 2d | 41d 2h | 0 | | 0 |
| 4.2.1 | Basic image decoding | 16 Nov | 18 Nov | 2d | 2d | 35d 2h | 0 | | 0 |
| 4.3 | UI | 18 Nov | 25 Nov | 6d 2h | 6d 2h | 35d | 0 | | 0 |
| 4.3.1 | Functional user interface | 18 Nov | 25 Nov | 6d 2h | 6d 2h | 35d | 0 | | 0 |
| 5 | Integration | 16 Nov | 19 Nov | 3d | 3d | 44d 2h | 0 | | 0 |
| 5.1 | Payload controller to autopilot/base station | 16 Nov | 19 Nov | 3d | 3d | 44d 2h | 0 | | 0 |
| 6 | Background Research | 5 Oct | 15 Oct | 19d | 10d | 74d | 0 | | 0 |
| 6.1 | Camera selection | 5 Oct | 7 Oct | 3d | 3d | 81d | 0 | | 0 |
| 6.2 | Payload controller (e.g. microcontroller/FPGA) selection | 12 Oct | 15 Oct | 4d | 4d | 45d | 0 | | 0 |
| 6.3 | Communication protocols | 5 Oct | 7 Oct | 3d | 3d | 81d | 0 | | 0 |
| 6.4 | Image processing/compression | 5 Oct | 11 Oct | 6d | 6d | 46d | 0 | | 0 |
| 6.5 | Programming language | 5 Oct | 7 Oct | 3d | 3d | 81d | 0 | | 0 |
| 7 | Prepare presentation | 22 Oct | 10 Jan | 10d | 69d | | 0 | | 0 |
| 7.1 | Progress seminar 1 | 22 Oct | 25 Oct | 3d | 3d | 66d | 0 | | 0 |
| 7.2 | Progress seminar 2 | 25 Nov | 28 Nov | 3d | 3d | 37d | 0 | | 0 |
| 7.3 | Final presentation | 6 Jan | 10 Jan | 4d | 4d | | 0 | | 0 |
| 8 | Report Writing | 30 Nov | 15 Dec | 13d 1h | 13d 1h | 22d 6h | 0 | | 0 |
| 9 | Whole System Testing | 6 Dec | 10 Dec | 5d | 5d | 26d | 0 | | 0 |