

Downlink Project

Action:

Milestone, Start Date: 23/09/2024 , **Completed Date:** 07/04/2025 , **Duration:** 196.00 days , **Complete:** 33 % , **Status:** In Progress

Resources:

Daniel Stebbings

1: Deliverables

Action:

Start Date: 23/09/2024 , **Completed Date:** 31/03/2025 , **Duration:** 189.96 days , **Complete:** 23 % , **Status:** In Progress

1.1: Statement of Intent

Action:

Start Date: 23/09/2024 , **Completed Date:** 07/10/2024 , **Duration:** 14.00 days , **Complete:** 100 % , **Status:** Completed

1.2: Interim Report

Action:

Start Date: 25/11/2024 , **Completed Date:** 20/01/2025 , **Duration:** 56.96 days , **Complete:** 41 % , **Status:** In Progress

1.2.1: Draft Deadline

Action:

Milestone, Start Date: 06/12/2024 , **Completed Date:** 06/12/2024 , **Duration:** 23.00 hours , **Status:** Not Started

1.2.2: Final Deadline

Action:

Milestone, Start Date: 13/12/2024 , **Completed Date:** 13/12/2024 , **Duration:** 23.00 hours , **Status:** Not Started

1.2.3: Creation

Action:

Start Date: 25/11/2024 , **Completed Date:** 13/12/2024 , **Duration:** 18.00 days , **Complete:** 50 % , **Status:** In Progress

1.2.4: Supervisor Feedback

Action:

Start Date: 03/12/2024 , **Completed Date:** 03/12/2024 , **Duration:** 23.00 hours , **Status:** Not Started

Resources:

Supervisor

1.2.5: Oral Review

Action:

Milestone, Start Date: 20/01/2025 , **Completed Date:** 20/01/2025 , **Duration:** 23.00 hours , **Status:** Not Started

1.3: Poster**Action:**

Start Date: 28/01/2025 , **Completed Date:** 31/03/2025 , **Duration:** 62.96 days , **Status:** Not Started

1.3.1: Creation

Action:

Start Date: 16/02/2025 , **Completed Date:** 02/03/2025 , **Duration:** 14.00 days , **Status:** Not Started

1.3.2: Submission

Action:

Milestone, Start Date: 02/03/2025 , **Completed Date:** 02/03/2025 , **Duration:** 12.00 hours , **Status:** Not Started

1.3.3: Supervisor Feedback

Action:

Start Date: 28/01/2025 , **Completed Date:** 28/01/2025 , **Duration:** 23.00 hours , **Status:** Not Started

Resources:

Supervisor

1.3.4: Presentation

Action:

Milestone, Start Date: 31/03/2025 , **Completed Date:** 31/03/2025 , **Duration:** 12.00 hours , **Status:** Not Started

1.4: Final Report**Action:**

Start Date: 03/03/2025 , **Completed Date:** 31/03/2025 , **Duration:** 28.00 days , **Status:** Not Started

1.4.1: Creation

Action:

Start Date: 03/03/2025 , **Completed Date:** 31/03/2025 , **Duration:** 28.00 days ,

Status: Not Started

1.4.2: Supervisor Feedback

Action:

Start Date: 23/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 1.00 day , **Status:** Not Started

Resources:

Supervisor

1.4.3: Submission

Action:

Milestone, Start Date: 31/03/2025 , **Completed Date:** 31/03/2025 , **Duration:** 23.00 hours , **Status:** Not Started

1.4.4: Design Freeze

Action:

Milestone, Start Date: 24/03/2025 , **Completed Date:** 25/03/2025 , **Duration:** 1.00 day , **Status:** Not Started

2: Research

Action:

Start Date: 25/09/2024 , **Completed Date:** 06/01/2025 , **Duration:** 103.00 days , **Complete:** 88 % , **Status:** In Progress

2.1: DVB-S2

Action:

Start Date: 25/09/2024 , **Completed Date:** 26/12/2024 , **Duration:** 92.00 days , **Complete:** 85 % , **Status:** In Progress

2.1.1: ACM

Action:

Start Date: 04/10/2024 , **Completed Date:** 19/11/2024 , **Duration:** 45.04 days , **Complete:** 100 % , **Status:** Completed

2.1.1.1: Link Budget

Action:

Start Date: 04/10/2024 , **Completed Date:** 11/11/2024 , **Duration:** 38.00 days , **Complete:** 100 % , **Status:** Completed

2.1.1.2: Orbit Analysis

Action:

Start Date: 12/11/2024 , **Completed Date:** 19/11/2024 , **Duration:** 7.00 days , **Complete:** 100 % , **Status:** Completed

2.1.2: Standard

Action:

Start Date: 27/09/2024 , **Completed Date:** 18/10/2024 , **Duration:** 21.00 days ,
Complete: 100 % , **Status:** Completed

2.1.2.1: Read-Through

Action:

Start Date: 27/09/2024 , **Completed Date:** 18/10/2024 , **Duration:** 21.00 days ,
Complete: 100 % , **Status:** Completed

2.1.3: Existing Implementations

Action:

Start Date: 25/09/2024 , **Completed Date:** 26/12/2024 , **Duration:** 92.00 days ,
Complete: 75 % , **Status:** In Progress

2.1.3.1: GNU Radio

Action:

Start Date: 25/09/2024 , **Completed Date:** 24/12/2024 , **Duration:** 90.00 days ,
Complete: 70 % , **Status:** In Progress

2.1.3.2: MATLAB / HDL Coder

Action:

Start Date: 27/09/2024 , **Completed Date:** 26/12/2024 , **Duration:** 90.00 days ,
Complete: 80 % , **Status:** In Progress

2.2: Packets

Action:

Start Date: 08/10/2024 , **Completed Date:** 06/01/2025 , **Duration:** 90.00 days ,
Complete: 83 % , **Status:** In Progress

2.2.1: XTCE Standard

Action:

Start Date: 08/10/2024 , **Completed Date:** 06/01/2025 , **Duration:** 90.00 days ,
Complete: 70 % , **Status:** In Progress

2.2.2: Niamh Dissertation

Action:

Start Date: 28/10/2024 , **Completed Date:** 01/12/2024 , **Duration:** 34.00 days ,
Complete: 100 % , **Status:** Completed

2.2.3: Libraries

Action:

Start Date: 28/10/2024 , **Completed Date:** 01/12/2024 , **Duration:** 34.00 days ,
Complete: 100 % , **Status:** Completed

2.3: STRATHcube

Action:

Start Date: 04/10/2024 , **Completed Date:** 03/12/2024 , **Duration:** 60.00 days ,
Complete: 100 % , **Status:** Completed

2.3.1: Mission Requirements

Action:

Start Date: 08/11/2024 , **Completed Date:** 03/12/2024 , **Duration:** 25.00 days ,
Complete: 100 % , **Status:** Completed

2.3.2: Data Handling

Action:

Start Date: 28/10/2024 , **Completed Date:** 01/12/2024 , **Duration:** 34.00 days ,
Complete: 100 % , **Status:** Completed

2.3.3: Existing Link Budget

Action:

Start Date: 04/10/2024 , **Completed Date:** 11/10/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

3: Systems Engineering

Action:

Start Date: 15/10/2024 , **Completed Date:** 09/12/2024 , **Duration:** 55.00 days ,
Complete: 60 % , **Status:** In Progress

3.1: Requirements

Action:

Start Date: 15/10/2024 , **Completed Date:** 09/12/2024 , **Duration:** 55.00 days ,
Complete: 60 % , **Status:** In Progress

4: Implementation

Action:

Start Date: 21/10/2024 , **Completed Date:** 24/03/2025 , **Duration:** 154.96 days ,
Complete: 14 % , **Status:** In Progress

4.1: Transmitter

Action:

Start Date: 21/10/2024 , **Completed Date:** 24/03/2025 , **Duration:** 154.96 days ,
Complete: 21 % , **Status:** In Progress

4.1.1: MATLAB

Action:

Start Date: 21/10/2024 , **Completed Date:** 24/03/2025 , **Duration:** 154.96 days ,
Complete: 26 % , **Status:** In Progress

4.1.1.1: Resource Usage Analysis

Action:

Start Date: 21/10/2024 , **Completed Date:** 11/11/2024 , **Duration:** 21.00 days ,
Complete: 100 % , **Status:** Completed

4.1.1.2: Transceiver Integration

Action:

Start Date: 13/12/2024 , **Completed Date:** 27/01/2025 , **Duration:** 45.00 days ,
Status: Not Started

4.1.1.3: Resource Usage Optimisation

Action:

Start Date: 10/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 14.00 days ,
Status: Not Started

4.1.2: Libiio Driver

Action:

Start Date: 13/01/2025 , **Completed Date:** 10/02/2025 , **Duration:** 28.00 days ,
Status: Not Started

4.1.3: GNU Radio Interface

Action:

Start Date: 03/02/2025 , **Completed Date:** 10/02/2025 , **Duration:** 7.00 days , **Status:**
Not Started

4.2: Packet Handling

Action:

Start Date: 16/12/2024 , **Completed Date:** 03/03/2025 , **Duration:** 77.00 days ,
Status: Not Started

4.2.1: System Interfacing

Action:

Start Date: 16/12/2024 , **Completed Date:** 15/01/2025 , **Duration:** 30.96 days ,
Status: Not Started

4.2.1.1: Packet Source Simulation

Action:

Start Date: 16/12/2024 , **Completed Date:** 15/01/2025 , **Duration:** 30.00 days ,

Status: Not Started

4.2.1.2: InterProcess Communication (IPC)

Action:

Start Date: 08/01/2025 , **Completed Date:** 15/01/2025 , **Duration:** 7.00 days , **Status:** Not Started

4.2.2: XTCE Handling

Action:

Start Date: 16/12/2024 , **Completed Date:** 03/03/2025 , **Duration:** 77.00 days , **Status:** Not Started

4.2.2.1: Verification Schema Creation

Action:

Start Date: 16/12/2024 , **Completed Date:** 23/12/2024 , **Duration:** 7.00 days , **Status:** Not Started

4.2.2.2: Packet Handling

Action:

Start Date: 17/02/2025 , **Completed Date:** 03/03/2025 , **Duration:** 14.00 days , **Status:** Not Started

4.2.3: Scheduling

Action:

Start Date: 17/02/2025 , **Completed Date:** 03/03/2025 , **Duration:** 14.00 days , **Status:** Not Started

4.2.3.1: Buffer Management

Action:

Start Date: 17/02/2025 , **Completed Date:** 03/03/2025 , **Duration:** 14.00 days , **Status:** Not Started

4.2.3.2: Algorithm

Action:

Start Date: 17/02/2025 , **Completed Date:** 03/03/2025 , **Duration:** 14.00 days , **Status:** Not Started

4.2.4: PL Interface

Action:

Start Date: 27/01/2025 , **Completed Date:** 10/02/2025 , **Duration:** 14.00 days , **Status:** Not Started

4.2.4.1: GNU Radio + Libiio Integration

Action:

Start Date: 27/01/2025 , **Completed Date:** 10/02/2025 , **Duration:** 14.00 days ,
Status: Not Started

4.2.4.2: ACM Command handling

Action:

Start Date: 27/01/2025 , **Completed Date:** 10/02/2025 , **Duration:** 14.00 days ,
Status: Not Started

4.3: System Prototype Creation

Action:

Milestone, Start Date: 03/02/2025 , **Completed Date:** 04/02/2025 , **Duration:** 1.00 day ,
Status: Not Started

5: Verification

Action:

Start Date: 13/01/2025 , **Completed Date:** 24/03/2025 , **Duration:** 70.96 days ,
Status: Not Started

5.1: Required

Action:

Start Date: 13/01/2025 , **Completed Date:** 24/03/2025 , **Duration:** 70.96 days ,
Status: Not Started

5.1.1: Timing Closure

Action:

Start Date: 20/01/2025 , **Completed Date:** 27/01/2025 , **Duration:** 7.00 days , **Status:**
Not Started

5.1.2: Individual Component Testing

Action:

Start Date: 13/01/2025 , **Completed Date:** 27/02/2025 , **Duration:** 45.00 days ,
Status: Not Started

5.1.3: Testing against all performance requirements

Action:

Start Date: 03/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 21.00 days ,
Status: Not Started

5.2: Optional

Action:

Start Date: 10/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 14.00 days ,
Status: Not Started

5.2.1: End To End Hardware Testing

Action:

Start Date: 10/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 14.00 days ,
Status: Not Started

5.2.2: Memory Corruption

Action:

Start Date: 10/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 14.00 days ,
Status: Not Started

6: Timings

Action:

Start Date: 23/09/2024 , **Completed Date:** 07/04/2025 , **Duration:** 196.00 days ,
Complete: 37 % , **Status:** In Progress

6.1: Semester 1

Action:

Start Date: 23/09/2024 , **Completed Date:** 13/01/2025 , **Duration:** 112.00 days ,
Complete: 64 % , **Status:** In Progress

6.1.1: W1

Action:

Start Date: 23/09/2024 , **Completed Date:** 30/09/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.2: W2

Action:

Start Date: 30/09/2024 , **Completed Date:** 07/10/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.3: W3

Action:

Start Date: 07/10/2024 , **Completed Date:** 14/10/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.4: W4

Action:

Start Date: 14/10/2024 , **Completed Date:** 21/10/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.5: W5

Action:

Start Date: 21/10/2024 , **Completed Date:** 28/10/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.6: W6

Action:

Start Date: 28/10/2024 , **Completed Date:** 04/11/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.7: W7

Action:

Start Date: 04/11/2024 , **Completed Date:** 11/11/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.8: W8

Action:

Start Date: 11/11/2024 , **Completed Date:** 18/11/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.9: W9

Action:

Start Date: 18/11/2024 , **Completed Date:** 25/11/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.10: W10

Action:

Start Date: 25/11/2024 , **Completed Date:** 02/12/2024 , **Duration:** 7.00 days ,
Complete: 100 % , **Status:** Completed

6.1.11: W11

Action:

Start Date: 02/12/2024 , **Completed Date:** 09/12/2024 , **Duration:** 7.00 days ,
Complete: 20 % , **Status:** In Progress

6.1.12: W12 (Exam 1)

Action:

Start Date: 09/12/2024 , **Completed Date:** 16/12/2024 , **Duration:** 7.00 days , **Status:**
Not Started

6.1.13: W13 (Exam 2)

Action:

Start Date: 16/12/2024 , **Completed Date:** 23/12/2024 , **Duration:** 7.00 days , **Status:**
Not Started

6.1.14: Christmas 1

Action:

Start Date: 23/12/2024 , **Completed Date:** 30/12/2024 , **Duration:** 7.00 days , **Status:** Not Started

6.1.15: Christmas 2

Action:

Start Date: 30/12/2024 , **Completed Date:** 06/01/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.1.16: Christmas 3

Action:

Start Date: 06/01/2025 , **Completed Date:** 13/01/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2: Semester 2

Action:

Start Date: 13/01/2025 , **Completed Date:** 07/04/2025 , **Duration:** 84.00 days , **Status:** Not Started

6.2.1: Consolidation

Action:

Start Date: 13/01/2025 , **Completed Date:** 20/01/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2.2: W1

Action:

Start Date: 20/01/2025 , **Completed Date:** 27/01/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2.3: W2

Action:

Start Date: 27/01/2025 , **Completed Date:** 03/02/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2.4: W3

Action:

Start Date: 03/02/2025 , **Completed Date:** 10/02/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2.5: W4

Action:

Start Date: 10/02/2025 , **Completed Date:** 17/02/2025 , **Duration:** 7.00 days , **Status:** Not Started

6.2.6: W5

Action:

Start Date: 17/02/2025 , **Completed Date:** 24/02/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.7: W6

Action:

Start Date: 24/02/2025 , **Completed Date:** 03/03/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.8: W7

Action:

Start Date: 03/03/2025 , **Completed Date:** 10/03/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.9: W8

Action:

Start Date: 10/03/2025 , **Completed Date:** 17/03/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.10: W9

Action:

Start Date: 17/03/2025 , **Completed Date:** 24/03/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.11: W10

Action:

Start Date: 24/03/2025 , **Completed Date:** 31/03/2025 , **Duration:** 7.00 days , **Status:**
Not Started

6.2.12: W11

Action:

Start Date: 31/03/2025 , **Completed Date:** 07/04/2025 , **Duration:** 7.00 days , **Status:**
Not Started