Team member responsibilities

### **Total time: 6-7 months**

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| --- | --- | --- | --- | --- | --- | --- |
| **Phase** | **Week** | **Goal** | **IT Technician**  **[Luke]** | **Elektriker[Darko]** | **Chemiker[Christoph]** | **Mechanical engineer**  **[Ramo]** |
| **Phase 1: Project planning and conception** | 2 | Define requirements, create drafts, distribute tasks | Selection of Arduino and sensors, Planning a control system | Create circuit diagram, select components | Calculation of fuel quantity, safety concept | Create CAD model, select materials, ; |
| **Result:** Project plan, bill of materials, safety concepts, CAD model |  |  |  |  |  |  |
| **Phase 2: Material procurement and preparation** | 4 | Procurement of all materials and components | Ordering Arduino, GPS, IMU, Sensors | Ordering of cables, motors, batteries | Procurement of ethanol, N₂O, tanks, safety equipment | Order of carbon fiber, aluminum, tools |
| **Result:** All materials and tools ready |  |  |  |  |  |  |
| **Phase 3: Construction of the rocket design** | 8 | Manufacturing and assembly of the rocket structure | Integration of Arduino components, preparation of wiring | Wiring and installation of electronic components |  | Laminating the carbon fiber, assembling aluminum parts, integrating gimbaling system |
| **Phase 4: Setup of the propulsion system and fuel tests** | 6 |  |  | Fuel system integration, carry out tests | Integration and testing of the gimbaling and propulsion system |  |
| **Result:** Functional and tested drive system |  |  |  |  |  |  |
| **Phase 5: Electronics and Software Development** | 10 | Development and integration of software and electronics | Development of the software, integration of the sensors, calibration | Setting up the power supply, integrating the cabling |  |  |
| **Result:** Fully developed and tested Arduino controller |  |  |  |  |  |  |
| **Phase 6: Soil testing and adjustment** | 5 | Testing of all systems under realistic conditions | Software Testing, Calibration, Telemetry Testing | Load tests, checking the cabling | Fuel Safety Tests, Adjustments | Static tests of the gimbal system Final acceptance |
| **Result:** Ready-to-go, tested prototype |  |  |  |  |  |  |
| **Phase 7: Launch preparation and test flight** | 3 | Execution of the test flight Evaluation of the data | Verification and calibration Monitoring of the start | Control of electrical systems, parachute deployment |  | Fuel Refueling & Monitoring | Final structural review, preparation for launch |
| **Result:** Successful test flight, data evaluation |  |  |  |  |  |  |