Quality Assurance Plan for Indoor Drone Development

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# Draft Quality Assurance Plan

### Introduction

This Quality Assurance Plan (QAP) sets forth the process, methods, procedures, and standards that will be used to perform the Quality Assurance function for the Indoor Drone (InD) project. The QAP follows the Waterfall development, modified to accommodate the project model adapted for the Indoor Drone project.

### Purpose & Scope

This QAP provides foundation for managing the InD’s quality assurance activities and is based on project activities and work products as documented in the InD Project Plan.

This plan includes:

* Identifies the QA responsibilities of the team and the QA consultant
* Defines InD reviews and audits.
* Lists the works, activities and processes that QA consultant will review and audit

### Policy Statement

The developments processes will follow these policies:

* Price checking
* Availabilities
* Compatible with other devices
* Chance of improvement

### References

*<Waterfall ref?>*

# Management

### Organizational Structure

|  |  |  |
| --- | --- | --- |
| Name | Role | Required Skills |
| Huy, Quan | Business Analyst | Communication skills, problem solving, critical thinking skills, business analysis |
| Hoan, Quan, Y, Thinh | Embedded Developer | C++, Arduino, Scratch, electronic fundamental |
| Y, Thinh, Huy | Designer | 3D design, 3D printing |
| Hoan, Quan, Huy | Computer Vision | Python, OpenGL, Machine learning, Data Labelling and analytics, Computer vision |

### Roles and Responsibilities

The following chart defines the QA roles and responsibilities of the members of the project team.

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **QA Responsibility** |
| QA Manager | Do Thien Y | Manages the Quality Assurance functions. |
| QA Consultant | Do Thien Y | Audits and approves project deliverables from QA perspective. Reviews plans and deliverables for compliance with applicable standards. Provides guidance and assistance on process matters. |
| Project Manager | Tran Duc Huy | Ensures implementation of quality activities. Coordinates resolution of issues. Provides regular and timely communications |
| Project Supervisor | Cao Xuan Nam | Monitors implementation of  quality activities. Receives reports on InD project’s quality efforts. Resolves conflict across organizations. |

# Required Documentation

The InD Project Plan will follow the Waterfall Methodology standard and the Waterfall Project Plan Example. All lifecycle work product standards are documented in the InD Project Plan. They include the following documents:

* Test Report(s)
* Approval form

# Quality Assurance Procedures

### Walkthrough Procedure

Quality Assurance for this project will include at least one audit of all current draft deliverables and selected work products in each stage of development. The reviews will assure that the established system development and project management processes and procedures are being followed effectively, and exposures and risks to the current Project Plan are identified and addressed.

### Review Process

##### Review Procedures

In-stage reviews, hereinafter referred-to as In-Stage Assessments (ISA), will be performed and documented by the InD Quality Assurance consultant.

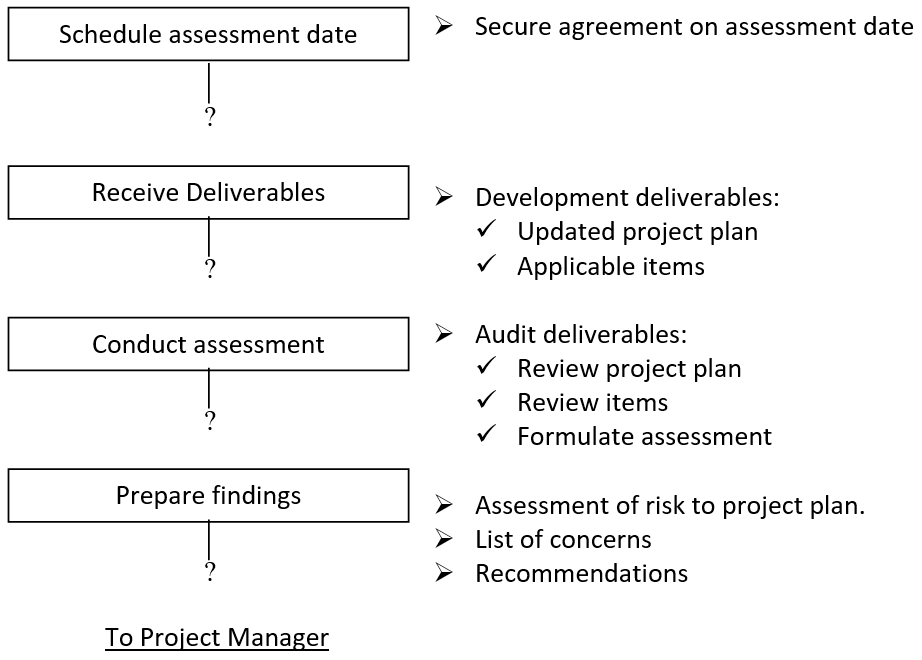
After the evaluation process of deliverables is completed and approved, the project will move forward to the next stage of development.

### Audit Process

##### Audit Procedures

Each deliverable and/or selected work product will be audited to make judgements as to the quality and validity of the deliverable or work product. The assessment will include any verification or validation activities performed since the last In-Stage Assessment. The reviewer will document the results of the assessment using the Test Report.

### Evaluation Process



### Process Improvement

# Problem Reporting Procedures

### Noncompliance Reporting Procedures

An issue will be logged into the Test Report if there is a problem without a visible plan for resolution. Once a list of issues has been compiled, it will be reviewed with the project manager to see if any new or additional information might mitigate or eliminate any of them. Remaining issues must be addressed with an action plan from the project manager.

# Quality Assurance Metrics

An Approved deliverable is:

* Fully tested deliverables
* Documented tests
* Performance wise
* Compatible with other features
* Open rooms for further development