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| **Plan van aanpak** | | Versie: 1.0  Filenaam:  Datum opgesteld: 08-02-2017 |
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| **Versie** | **Wijzigingen** |
| 1.0 | Eerste versie |
| 1.1 |  |
| 1.2 |  |
| 1.3 |  |
| 1.4 |  |
| 1.5 |  |

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| Handtekening voor goedkeuring: |

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# Introductie

## Over Project Inspectie Drone

## Opdracht

## Definities, Acroniemen and Afkortingen

Onderstaand is een lijst met definities, acroniemen en afkortingen te vinden. Deze lijst is samengesteld om het lezen van dit document gemakkelijker te maken.

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# Onderzoeksvraag en achtergrond

# Doel

# Resultaat

# Afbakening

# Risicoanalyse

There are some risks which need considering in the project. These risks could be caused by omission, optimistic planning, extensive testing etc. Below these risks can be found.

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Risk | Measure | Accountable |
| Project | Deadlines are not met | Make accurate planning, keep the planning up-to-date, discuss planning with client | Teun Broeren |
| Project | Omission/negligence (illness, dentist, physiotherapist, funerals etc.) | Keep this into account with the design of planning (spacious) | Teun Broeren |
| Technical | Changes in product description (during project) which cause a lot of amendments | Have comprehensive discussions about requirements, wishes and nice-to-haves (Product Requirements) | Steven van Raalte  Teun Broeren |
| Project | Description of project/assignment is not clear enough, which causes wrong or partly wrong development/research of product | Plan of Action reviewed, discuss and implement feedback and let review one more time. This applies not only to Plan of Action, but to all documents | Bertus Tjalsma  Teun Broeren |
| Technical | Testing of prototype/product is more extensive than expected, so takes more time, which leaves less/no time for potential amendments | Require information about these procedure and processes | Teun Broeren |
| Technical | Norms, regulations, laws etc. are amended during the project, so that the final product has to conform different regulations | Stay up-to-date with all regulations etc. Get information about this | Teun Broeren |

# Randvoorwaarden

The boundary conditions are occasions that are already fixed at the start of the project. This are deadlines, availability, duration, resources etc. The boundary conditions for this project are shown in the list below.

* + This project is conducted by an intern/trainee. Internship will last from 29 August 2016 till 27 January 2017. In total the project will last 20 weeks, which resemblances about 760 hours.
  + Bertus Tjalsma is the mentor/attendant of the intern. He will supervise the project. Every week there is a progress meeting with Bertus and Teun. Bertus will also partially function as client.
  + There are several deadlines, most of them are set by the *Avans Hogeschool*:
    - Plan of Action 16/09/2016
    - Product Requirements 16/09/2016
    - Reflection report 1 17/09/2016
    - Learning targets 23/09/2016
    - Report Coaching-meeting 1 30/09/2016
    - Concept Stage-report 07/10/2016
    - Reflection report 2 26/11/2016
    - Report Coaching-meeting 2 02/12/2016
    - Report visit fellow student 06/01/2017
    - Stage-report 13/01/2017
    - Assignment Durability 13/01/2017
    - Stage-rating Bosch 13/01/2017
    - Final reflection 13/01/2017
    - Stage-rating *(docent)*  27/01/2017
    - Final rating *(docent)*  24/02/2017

# Fasering en planning

To apply a proper project implementation within an organisation, it is important to (in broad terms) have clear procedures that everyone in the organisation is aware of and which are practically applicable at the approach of the project. The clarity must be based on a clear phasing, in which decision points per phase between client and project coordinator are included.

In many project types, but especially in a project where new product/development/building etc. are developed/researched, the phases found in the table are the base of the general phasing. The phases in the table below are modified so that they fit this project.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase** | **Goal of Phase** | **(Interim) results/products/activities** | **Start date** | **End date** |
| 1. Initiation Phase | Obtaining a correct image for everyone involved in the project | * Ideation * Collect information * Research (global) problem * Project definition * Plan of Action (approved) * Initiation Product Requirements | 29/08/2016 | 16/09/2016 |
| 2. Definition Phase | Obtaining a complete and specific list of requirements to which the project result has to comply in terms of boundary conditions, functional and user requirements and design constraints | * Collect information * Expand Product Requirements (approved) * Research feasibility * Set up working structure * Concept choice | 12/09/2016 | 14/10/2016 |
| 3. Design Phase | Obtaining a detailed elaborated solution/design | * Research (see planning for more details) * Detailing Product Requirements * Design ILS system * Check norms and regulations * Get information about realisation processes (within Bosch Security Systems) * Draft Bill Of Materials (BOM) | 17/10/2016 | 25/11/2016 |
| 4. Realisation Phase | The making of the perfect result | * Executing program * Draft technical documentation | 28/11/2016 | 26/12/2016 |
| 5. Testing Phase | Test documentation which implies all information about testing | * Gain info about testing within Bosch Security Systems * (extended) Testing * Draft test documentation | 02/01/2016 | 20/01/2016 |

# Project management

## Tijd

Time is an essential factor in this project. Since it is conducted during an internship, the duration is predetermined. In this case, the duration is 20 weeks, or 100 days.

In order to monitor/guard time, a planning is made. In this document, all global and detailed assignments, partial assignments and deadlines are captured. All these (partial) assignments are allocated under partial project activities, have a deadline date, and have an estimated and realised duration, a priority and a progress percentage. This document is updated after time has been spent on an assignment.

## Kwaliteit

Quality is a crucial factor at Bosch Security Systems. All products delivered by Bosch are high quality, so this can be no different. Quality is ensured by multiple factors. One of these factors is the reviewing of documents. Obviously, this only works if documents are up-to-date. Documents are going to be reviewed by colleagues/supervisor.

Another factor is the ensuring of no rush. Rush causes unnecessary faults and sloppiness. The phasing ensures that the right things are being done first.

## Organisatie

In the table below, all involved participants of Bosch Security Systems of the Individual Loudspeaker Supervision project can be found.

|  |  |  |  |
| --- | --- | --- | --- |
| **Who** | **Function** | **Responsibility** | **Tasks** |
| Bertus Tjalsma | Client/supervisor | Communication with project leader, approval of interim results, reviewing of documents | Review interim results, approve/reject documents |
| Steven van Raalte | Representation of customer/consumer | Giving wishes, requirements and nice-to-haves, knowing what the customer wants | Determine requirements |
| Teun Broeren | Executor | Executor of project, completion of interim results (before deadline) | Create documents, determine solution, realisation, testing |

## Financiën

For the technical information about finances (PPC etc.), check [*[Project Requirements\_Individual\_LSP\_Supervision\_IPPA]*.](file:///\\Ein1fs02\bt71ein$\Documents\Project%20Individual%20Loudspeaker%20Supervision%20IPPA\Project%20Requirements_Individual_LSP_Supervision_IPPA.docx)

In this project, there is no predetermined budget. There is no predetermined budget because no big expenses are expected. Obviously there are some costs. The executor of the project (Teun Broeren) receives an internship compensation. The meetings with Bertus and Steven need time, and time is money. Also the weekly progress meeting with Bertus will cost time. Since the intern has its own desk and desktop, this are also costs. It is not necessary to go into detail of these costs, but they are worth mentioning.

The biggest expense of this project will be the making of a prototype of the Individual Loudspeaker Supervision system. This expense is not yet predetermined but will be in the near future.