# Workloads

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# Contents

# 1 Project Managment Report

| | Time in hours |
|---|---|
| optimistic | 10 |
| most likely | 15 |
| pessimistic | 30 |

- create product requirement catalog (50 / 70 / 100)
- create GANTT diagram (5 /10 / 15)
- negoitate time and costs with customer (10 / 12 /15 )

# 2 Hardware prerequisites [Hpre]

|  | Time in hours |
|---|---|
| optimistic | 10 |
| most likely | 15 |
| pessimistic | 30 |

## 2.1 Video cameras [HpreCam]

1. research for good product
   - investigate environment / areas / building (8/10/12)
   - estimate amounts and total costs (8/10/12)
2. negotiate with customer (8/10/12)
3. buy those products (8/10/12)

## 2.2 Storage [HpreS]

1. research archive backup file system
   - NAS with redundance (RAID 2) (4/6/8)
   - Backup also with (RAID 2) (4/6/8)

## 2.3 Panels [HpreP]

1. research for good product
   - investigate environment / areas / building (8/10/12)
   - estimate amounts and total costs (4/8/12)
2. negotiate with customer (4/8/12)
3. buy those products (4/8/12)

# 2.4  Control Unit (PLC) [HprePLC]

1. research for good product

   - investigate environment / areas / building (4/8/12)

   - estimate amounts and total costs (4/8/12)

2. negotiate with customer (4/8/12)

3. buy those products (4/8/12)

# 2.5  Server [HpreSer]

1. research for good product

   - investigate environment / areas / building (4/8/12)

   - estimate amounts and total costs (4/8/12)

2. negotiate with customer (4/8/12)

3. buy those products (4/8/12)

# 2.6  Sensors [HpreSens]

1. research for good product

   - investigate environment / areas / building (4/8/12)

   - estimate amounts and total costs (4/8/12)

2. negotiate with customer (4/8/12)

3. buy those products (4/8/12)

# 3 Hardware installation [Hin]

| | Time in hours |
|---|---|
| optimistic | 10 |
| most likely | 15 |
| pessimistic | 30 |

## 3.1 installation and configuration

- video cameras (8/10/12) [HinCam]
    - dependent on [HpreCam]
- storage (8/10/12)[HinS]
    - dependent on [HpreS, HpreCam]
    - connect video cameras to system
- panels (8/10/12)[HinP]
    - dependent on [HpreP]
    - configuration
- Control Unit (PLC) (8/10/12) [HinPLC]
    - dependent on [HpreP]
- Sensors (8/10/12) [HinSens]
    - dependent on [HpreSens]

# 4  Software prerequisites [Spre]

|  | Time in hours |
|---|---|
| optimistic | 10 |
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| pessimistic | 30 |

## 4.1  Matlab [SpreMat]

- Buy licence / install software (1/4/8)

## 4.2  PLC IDEs - Automation Studio [SprePLC]

- Buy licence / install software (1/4/8)

# 5 Software

| | Time in hours |
|---|---|
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## 5.1 create infrastructure

- setup wiki (1/4/8)
- setup slack (1/2/3)
- setup git respository (1/2/3)
- setup task managment (1/2/3)

## 5.2 System analysis

- design architecture (24 / 30 / 48)
- define components / communication with external systems (interfaces) (24 / 30 / 48)
- invastigate time in finding out what technologies we want to use (24 / 30 / 48)
- create diagrams(24 / 30 / 48)
- describe behaviour of components and depedencies (24 / 30 / 48)
- find out problematic and time consuming tasks and challanges (24 / 30 / 48)

## 5.3 System design

- design mutliple GUI and Usability concept (48 / 60 / 90 )
- gather feedback from customer and redesign concepts (48 / 60 / 90 )
- design prototyp with fake data (48 / 60 / 90 )

## 5.4 System implementation

- implement components (200 / 300 / 480)
- unit tests (24 / 30 / 48)
- integration test (24 / 30 / 48)
- E2E testing (24 / 30 / 48)
- documentation (40 / 50 / 60)

# 6 Delivery

| | Time in hours |
|---|---|
| optimistic | 10 |
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| pessimistic | 30 |

- present / demonstrate system and software (12 / 20 / 30)
- get customer approval (1 /10 / 20)