Project Management

Work Breakdown Structure

Group 1

December 9, 2017

Contents

1 Project Managment Report [Prmr]

	Time in hours
optimistic	65
most likely	92
pessimistic	130

- 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	108
most likely	182
pessimistic	256

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	40
most likely	50
pessimistic	60

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	2
most likely	8
pessimistic	16

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 [So]

	Time in hours
optimistic	604
most likely	810
pessimistic	1259

5.1 create infrastructure [SoInf]

- 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 [SoAn]

- 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 [SoDes]

- 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 [SoImpl]

- 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 [Dlvry]

	Time in hours
optimistic	13
most likely	30
pessimistic	50

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

7 Precedence Chart