

## Wireless IO Tool

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# Wireless IO Tool

- **1.** Context
- 2. Project specifications
- 3. Hardware design
- 4. Software design
- **5.** Progress

#### 1. Context

## 2

#### Client

STERELA an Airbus subcontractor



#### Requirement

Make the ground test sequence wireless to reduce wiring costs, workforce and time



#### **Expected outcome**

A wireless proof of concept



### 2. Specifications



2. Specifications

## Hardware: x86 machine Xbee radio module

### OS: Ubuntu

### Language: C/C++

#### 3. Hardware design

Gateway



#### 3. Hardware design



#### 3. Hardware design

Which network architecture?



#### Zigbee:

-Three types of nodes, cheaper

- -Smaller payload size
- -Potential for interoperability
- -Large code size



Digimesh:

- -One type of node, more flexible
- -Larger payload size
- -Proprietary
- -Small code size

#### 3. Software design



#### Use case diagram

#### 3. Software design

#### class diagram



#### 3. Software design

#### Interactions diagram



#### 4. Progress

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Title	Start Time		Oct			Nov					Dec				Jan		
		End Time	- 17	18 - 24	25 - 31	01 - 07	08 - 14	15 - 21	22 - 28	29 - 05	06 - 12	13 - 19	20 - 26	27 - 02	03 - 09	10 - 16	17 - 23
Wireless IO Tool	10/19/2020	01/22/2021															
Agreement	10/19/2020	11/05/2020															
Requirements & Specifications	10/29/2020	11/30/2020															
Document Reading	11/05/2020	11/30/2020															
Project Planning	10/29/2020	11/22/2020															
- Design	11/09/2020	11/30/2020								2							
Wireless Communication	11/09/2020	11/27/2020															
ESAO Communication	11/09/2020	11/27/2020															
Hardware Solution	11/09/2020	11/29/2020															
Document Writing	11/23/2020	11/30/2020															
<ul> <li>Development</li> </ul>	11/30/2020	12/20/2020								Ļ							
Network	11/30/2020	12/13/2020										5					
Parser	11/30/2020	12/07/2020															
Gateway	12/07/2020	12/20/2020											5				
Integration	12/21/2020	01/08/2021							1						٦		
<ul> <li>Testing</li> </ul>	12/04/2020	01/11/2021										1			1	5	
Network	12/11/2020	12/18/2020									4						
Parser	12/04/2020	12/11/2020								4							
Gateway	12/18/2020	12/25/2020										Ļ					
Final Tests	12/25/2020	01/11/2021														1	
Final Revision	01/11/2021	01/18/2021													L	•	



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