AC data receiver

# Problem Statement

To solve problems for inconvenient of retrieving the data from long distance and spread around the perimeter.

# System/User requirement(functional)

|  |  |
| --- | --- |
| System | User |
| 1. The machine will generate the data 2. The send device will retrieve the data from the machine and translate as an UDP message 3. Than the send device will address the message(temperature, pressure) to the receiver device every ( ) min. 4. The receiver device will collect the data and detect if connected to the send device. 5. The receiver device will translate the message 6. Than it shall show the message(temperature, pressure ,timestamp). | The receiver device shall show the data send by the other send device so that the user can know the right amount of pressure and temperature from the distanced machine. |

* Functional ID :system should display
  1. Dummy Generator
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects
  2. Translate data from tool
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects
  3. Sending data from tool
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects
  4. Receives data from the device
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects
  5. Translate message
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects
  6. Display the message
     1. Function
        1. Description
        2. Inputs
        3. Source
        4. Outputs
        5. Destination
        6. Action
        7. Requirement
        8. Pre-condition
        9. Post-condition
        10. Side effects

# System Modeling

|  |  |  |
| --- | --- | --- |
| Skate holder | Actors goal | User case |
| AC repairer | repair AC | Using the device data to manger which action they should do to fix the AC |
| IT staff | installing and maintaining the system | When the monitor does not show the correctness of data.Every period of time should have a system upgrade since AC may have new process |
| Repair | Fix the device | When the device is broke |

* Skate holders: (End users, System managers/System owners, External stakeholders/Actors/goals) directly use the system and indirectly affected (in a major way) and pays for, or otherwise controls. the design of the system

AC repairer

people who need a range 10m to trade message with zeebig

IT staff who are responsible for installing and maintaining the system.

wireless technology

# Architectural Modeling

* Model-View-Controller patterns

# User Interface

* This is where students can record their ideas and research as they gather the information needed to complete their project.

## Pressure And Vacuum Display: Low Side – PSI, Bar, MPa, Kg/cm2 & IN-Hg High Side – PSI, Bar, MPa, Kg/cm2

## Temperature Display: -40° - 200°F (-4 - 93°C)

## Response Time: 250 mSec.

# Outline the steps/plan for your project:

|  |  |  |  |
| --- | --- | --- | --- |
| Task | Due Date | Done | Initials |
| Research |  |  |  |
| the works |  |  |  |
| Test |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Links

tool

<https://www.toolsid.com/mastercool/mastercool-automotive-tools-282469566.html>

<https://www.centurytool.net/4_Way_Digital_Manifold_Less_Accessories_p/msc99903.htm>