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Version Number:

Team Members :

Team No:

Module: Model Based System Engineering

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| **Ver.Rel. No.** | **Release Date** | **Prepared. By** | **Reviewed By** | **Approved By** | **Remarks/Revision Details** |
|  | 20/02/2022 | Deepika R |  |  |  |
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**Document History**

CASE STUDY ON SMART WATCHES

**REQUIREMENT:**

This case study is about smart watches by this designed wearable we would able monitor our health time to time without any equipment for checking and hospitals. This smart watch is manufactured using the microcontroller and sensors specifically I have used heart beat and BP monitoring sensors but actually smart watches comprises many features for monitoring and tracking purpose.

**HIGH LEVEL REQUIREMENT**:

HR01-Charing

HR02-Display time

HR03-Dection using sensors

HR04-Displaying the results time to time

**LOW LEVEL REQUIREMENT:**

LR01-Buletooth connection

LR02- Calling option

LR03-Internet connection

**RESEARCH:**

In this modern centaury watches are become into smart watches not only shows a time and also it significantly used in health monitoring includes features like monitoring heart beats, blood pressure, body temperature, steps, accelerometers etc add value to the product to even more useful.

**BLOCK DIAGRAM**:

Power

Button

# 

Voltage

Regulator

BP

Monitoring

Sensor

Heart Beat

Monitoring

Sensor

Microcontroller

LCD

**COMPONENTS DESCRIPTION**

* POWER BUTTON - push up to turn on the watch.
* VOLTAGE REGULATOR - maintain the voltage of electronic smart watch within limits
* HEART BEAT & BLOOD PRESSURE- monitoring using sensor for the benefit of user health.
* MICROCONTROLLER - comprises many components basically used in automatically controlled products which is manufactured to control the function of embedded systems,
* LCD - display the results of monitoring and time.

**APPLICATION**

* Help to improve your health by tracking fitness goals.
* We can use a lot of apps which are available for smart watches connecting through the Bluetooth
* Smart watches can do more than send email, answer your phone.