**COMPONENTS LIST**

Hardware

1. Microcontroller board

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | ARM MBED Cortex – M0 LPC11U24 Microcontroller | 1. Ease of programing 2. Sponsored by ARM 3. Low power | Rs. 2500/- |

1. Power supply

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | 12v-2Amp AC/DC adapter | Used as a power source | Rs. 150/- |
| 2. | 7.4v-2Ah Lead- ion battery(rechargeable) | Rs.800/- |

1. RF(GSM) module

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | SIM900 (RS232) | Ease of interfacing /GPRS enability | Rs. 1000/- |

1. Sensors
2. Soil Moisture

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | VM100 | To measure soil moisture(Non corrosive and water proof) | Rs. 3000/- |

1. Switching devices

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | Relay | To drive solenoid valve | Rs. 40/- |
| 2 | Solenoid valve | Ease of use | Rs. 350/- |

1. Display device

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | Liquid Crystal Display -16x2 | Experienced usage | Rs. 130/- |

1. Miscellaneous components

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| Sl.No | Components |
| 1 | Wire cutter |
| 2 | Switches |
| 3 | Wires (Single strand and Multi strand) |
| 4 | General PCBs |
| 5 | Multimeter |
| 6 | Resistor Set |
| 7 | Buge wire |
| 8 | Bread board |
| 9 | Battery holder |

Software

System Software

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | Windows XP/7 OS | Experienced usage | - |

1. Programming/Coding software

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| Sl.No | Components | Reason for selection | Aprox cost |
| 1 | Mbed online compiler | C++ coding for ARM MBED board | - |

1. Application Software

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| --- | --- | --- | --- |
| Sl.No | Components | Reason for selection | Aprox cost |
| 1. | Eagle layout editor 6.4.0 | PCB design | - |
| 2 | Tera term / Hyper terminal | Interfacing external modules to computer | - |