**qIOT BASED VERMICOMPOSTING**

**COMPONENTS**

* Gas Sensors (e.g., CO2 and O2): These sensors help monitor gas levels within the compost, ensuring adequate oxygen for the worms and the breakdown of organic matter.

# DFRobot Gravity: Analog Infrared CO2 sensor

* soil NPK sensor audrino compactable

< to detect the levels of nitrogen, phosphorus and potassium in the manure. To detect nutrients level for worms >

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| COMPONENTS | QUANTITY | PRICE | LINK |
| DS18B20 Temperature Sensor | 1 | 64.00 | https://www.electronicscomp.com/ds18b20-water-proof-temperature-sensor-probe-india?gclid=CjwKCAjwysipBhBXEiwApJOcu7k713fhmQgYDdBYgu4gRi135Q5-K1eqbGe7oDeHbmAZlkn2AzSjihoCfy0QAvD\_BwE |
| DFRobot Analog Waterproof Capacitive Soil Moisture Sensor | 1 | 39.00 | https://robu.in/product/soil-moisture-meter-soil-humidity-sensor-water-sensor-soil-hygrometer-ardunio/ |
| Analog pH Sensor | 1 | 1725.00 | <https://www.electronicscomp.com/analog-ph-sensor-kit-for-arduino?gad_source=4&gclid=CjwKCAjwv-2pBhB-EiwAtsQZFB3FJSfMd-CjfeUrWAmfDJfQZjH3d5HVTvrOobVemJ1-UKoeJzVvlhoCuNQQAvD_BwE> |
| DFRobot Gravity: Analog Infrared CO2 sensorSEN0220 | 1 | 4,827.34 | <https://www.digikey.in/en/products/detail/dfrobot/SEN0219/7087189?cur=INR&lang=en&utm_adgroup=&utm_source=google&utm_medium=cpc&utm_campaign=PMax%20Shopping_Product_Zombie%20SKUs&utm_term=&productid=7087189&utm_content=&utm_id=go_cmp-19871287595_adg-_ad-__dev-c_ext-_prd-7087189_sig-CjwKCAjwysipBhBXEiwApJOcu7tdIgBc59Nk7UgSi5wmLqoWIB4qcc5FPcwjK9XOEFNkB87342CDkRoCc2wQAvD_BwE&gclid=CjwKCAjwysipBhBXEiwApJOcu7tdIgBc59Nk7UgSi5wmLqoWIB4qcc5FPcwjK9XOEFNkB87342CDkRoCc2wQAvD_BwE> |
| Soil NPK sensor | 1 | 5782.00 | https://robosap.in/product/soil-npk-sensor-for-arduino-raspberry-pi-rs485-jxbs-3001/ |
| Micro controller:  Arduino uno | 1 | 631.68 | https://robu.in/product/arduino-uno-r3/ |
| breadboard | 1 | 58.00 | https://quartzcomponents.com/products/colored-breadboard-mb-102-830-point?variant=32394716151943&currency=INR&utm\_medium=product\_sync&utm\_source=google&utm\_content=sag\_organic&utm\_campaign=sag\_organic?utm\_source=google&utm\_medium=FreeListings&gad\_source=4&gclid=CjwKCAjwv-2pBhB-EiwAtsQZFHNZouvFZ60xpFIbb0GdUwTDhdu5-KOstOMM3z2sk40iKJPkrywuohoCUdAQAvD\_BwE |
| 4.7k ohm resistor | 1 | 5.00 | https://quartzcomponents.com/products/4-7k-ohm-1-4-watt-resistor?\_pos=3&\_sid=8bc73a0d5&\_ss=r |
| Jumper wires- male to male, female to female, male to female | 2 | 40 | https://quartzcomponents.com/products/jumper-wire-combo-m-to-m-m-to-f-f-to-f?\_pos=5&\_sid=33ad580f8&\_ss=r |
| RS485 Converter Module | 1 | 31 | <https://www.electronicscomp.com/max485-ttl-to-rs485-converter-module?gad_source=4&gclid=CjwKCAjwv-2pBhB-EiwAtsQZFHpphF8UenLdxpHpCHhY8buKmUAu4JrSIe-D08wxoRe0HZb8AXAy3xoCIpwQAvD_BwE> |
| MAX485 TTL to RS-485 Interface Module | 1 | 31 | https://www.electronicscomp.com/max485-ttl-to-rs485-converter-module?gad\_source=4&gclid=CjwKCAjwkY2qBhBDEiwAoQXK5ZQAwZ88p-JcJ7QlwHZAxQazYqb7yn8\_BjF\_7wyfy-k-lIuW11Ma3RoCP-kQAvD\_BwE |

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| Total: 132034.02 |