**Alat dan Bahan Kebutuhan Praktikum**

**Mikrokontroler dan Project**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Nama Alat/Bahan** | **Banyak (pcs/unit)** | **Gambar** | **Ket.** |
| 1. | Switch 2 pin (kecil) | 1 |  | Pemutus tegangan alat/perangkat |
| 2. | Socket DC male | 1 |  | Soket power supply Arduino |
| 3. | Clip On batere 9V | 1 |  | Sumber tegangan Arduino |
| 4. | Batere 9V | 1 |  | Sumber daya Arduino |
| 5. | Kabel data USB to mini USB | 1 |  | Unduh program ke Arduino |
| 6. | LED  | 1 |  | Sebagai indikator (warna bebas) |
| 7. | Ultrasonic sensor | 1 |  | Sensor jarak |
| 8. | Infra red sensor | 1 |  | Sensor jarak |
| 9. | PIR Sensor | 1 |  | Sensor gerak |
| 10. | LDR | 1 |  | Sensor cahaya |
| 11. | Servo S90G | 1 |  | Putaran 180O |
| 12. | DC Motor | 2 |  |  |
| 13. | Motor driver | 1 |  | Pengendali putaran motor DC |
| 14. | Ethernet shield | 1 |  | Koneksi Arduino ke jaringan |
| 15. | Bluetooth module | 1 |  |  |
| 16. | LCD 2x16 | 1 |  |  |
| 17. | Arduino UNO R3 | 1 |  |  |
| 18. | Breadboard | 1 |  |  |
| 19. | Jumper Male-Male | 1 |  |  |
| 20. | Jumper Male-Female | 1 |  |  |
| 21. | Solder  | 1 |  |  |
| 22. | Timah solder | 1 |  | Satuan: Roll |