|  |  |  |  |
| --- | --- | --- | --- |
| **Komponen** | **Fungsi** | **GPIO ESP32** | **Catatan** |
| **Motor Kanan** | ENA (PWM) | GPIO 13 | PWM |
|  | IN1 | GPIO 32 |  |
|  | IN2 | GPIO 33 |  |
| **Motor Kiri** | ENB (PWM) | GPIO 14 | PWM |
|  | IN3 | GPIO 25 |  |
|  | IN4 | GPIO 26 |  |
| **IR Sensor Kiri** | Digital Input | GPIO 34 | Input only, aman untuk IR |
| **IR Sensor Kanan** | Digital Input | GPIO 35 | Input only, aman untuk IR |
| **Ultrasonic** | TRIG | GPIO 27 | Output |
|  | ECHO | GPIO 4 | Input |
| **Servo Engsel** | PWM | GPIO 16 | PWM |
| **Servo Kunci** | PWM | GPIO 17 | PWM |
| **Buzzer** | PWM / I/O | GPIO 2 | I/O buzzer masuk ke sini |
| **RFID RC522** | SDA / SS | GPIO 5 | VSPI |
|  | SCK | GPIO 18 | VSPI |
|  | MOSI | GPIO 23 | VSPI |
|  | MISO | GPIO 19 | VSPI |
|  | RST | GPIO 22 | Aman bebas |
|  | IRQ | GPIO 21 | Tambahan untuk deteksi IRQ |