**GISMO-VI**

**On-board pin assignments**

**01: Relay**

|  |  |
| --- | --- |
| **Actuator** | **ESP32 pin** |
| **Relay** (Transistor drive) | GPIO13 |

**Headers for external sensors:**

**02: Magnetic switch**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| Sensor o/p contact 1 | GPIO16 |
| Sensor o/p contact 2 | GND |

**03: PIR module:**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| GND | GND |
| OUT | GPIO33 |
| VCC | 5V |

**04: Soil moisture sensor**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| VCC | 3.3V |
| GND | GND |
| DO | NC |
| AO | GPIO34 |

**Note: Do not short the AO and DO pins on the PCB**

**05: Ultrasonic sensor HC-SR04**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| VCC | 5V |
| Trigger | GPIO25 |
| Echo | GPIO26 |
| GND | GND |

**Note: Echo should be level translated using 5.6K and 10K potential divider**

**06: OLED module**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| SDA | GPIO21 |
| SCL | GPIO22 |
| VCC | 3.3V |
| GND | GND |

**07: APDS9960 module**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| INT | GPIO23 |
| SCL | GPIO22 |
| SDA | GPIO21 |
| VCC | 3.3V |
| GND | GND |

**08: BMP280 module**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| SDO | NC |
| CSB | NC |
| SDA | GPIO21 |
| SCL | GPIO22 |
| GND | GND |
| VCC | 3.3V |

**09: MPU6050 module**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| INT | NC |
| ADO | NC |
| XCL | NC |
| XDA | NC |
| SDA | GPIO21 |
| SCL | GPIO22 |
| GND | GND |
| VCC | 3.3V |

**10: MAX30100 module**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| VIN | 3.3V |
| SCL | GPIO22 |
| SDA | GPIO21 |
| INT | NC |
| IRD | NC |
| RD | NC |
| GND | GND |

**Note: SCL and SDA lines are to be pulled up**

**11: IR Receiver**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| OUT | GPIO4 |
| GND | GND |
| VCC | 3.3V |

**12: INMP441**

|  |  |
| --- | --- |
| **Sensor signal** | **ESP32 pin** |
| L/R | GND |
| WS | GPIO27 |
| SCK | GPIO14 |
| GND | GND |
| VDD | 3.3V |
| SD | GPIO12 |

**13: Buzzer**

|  |  |
| --- | --- |
| **Actuator** | **ESP32 pin** |
| Buzzer (Transistor drive) | GPIO32 |