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| No. | module name or electrical part | Communication Protocol |
| 1 | character LCD (CLCD) – 16x2 | 8bit (parallel) |
| 2 | character LCD (CLCD) – 20x4 | 8bit (parallel) |
| 3 | CLCD 16x2 controlled by shift-register IC | 3bit (parallel) |
| 4 | CLCD 20x4 controlled by shift-register IC | 3bit (parallel |
| 5 | CLCD 16x2 controlled by port expander PCF8574 | I2C |
| 6 | CLCD 20x4 controlled by port expander PCF8574 | I2C |
| 7 | Graphical LCD single color (GLCD) 128x64 | 8bit (parallel) |
| 8 | GLCD 128x64 controlled by MCP23017 | I2C |
| 9 | GLCD 128x64 controlled by MCP23S17 | SPI |
| 10 | TFT LCD Uno-pinout 2.4 inch + touch | 8bit (parallel)+SPI |
| 11 | TFT LCD Uno-pinout 3.95 inch + touch | 8bit (parallel)+SPI |
| 12 | TFT LCD Mega-pinout 4 inch | 8bit (parallel)+SPI |
| 13 | OLED display 0.96 inch – 128x64 | I2C |
| 14 | OLED display 1.54 inch – 128x64 | SPI |
| 15 | NEXTION HMI display – 2.4 inch | UART |
| 16 | NEXTION HMI display – 4.3 inch | UART |
| 17 | MPU6050- 6DoF IMU (GY-521) | I2C |
| 18 | MPU9150- 10DoF IMU (GY-9150) | I2C |
| 19 | GY-80 IMU – 11DoF | I2C |
| 20 | ADXL 345 (accelerometer sensor) | I2C |
| 21 | Keypad 5x4 | 9bit |
| 22 | Keypad 4x4 | 8bit |
| 23 | Keypad 4x4 controlled by PCF8574 | I2C |
| 24 | Keypad 3x4 | 7bit |
| 25 | Keypad 3x4 controlled by PCF8574 | I2C |
| 26 | Keypad 1x4 | 4bit |
| 27 | Keypad 1x4 controlled by PCF8574 | I2C |
| 28 | Keypad 4x4 - touch | ??? |
| 29 | Temperature Sensor – LM35 | analog |
| 30 | Temperature Sensor – DS18B20 | 1bit – single wire |
| 31 | Temperature Sensor – NTC family | analog |
| 32 | Temperature Sensor – PT100 | analog |
| 33 | Bluetooth module – HC-05 | UART |
| 34 | Bluetooth module – HC-08 | UART |
| 35 | Bluetooth module – HM-10 (CC2540) | UART |
| 36 | ZigBee module – CC2530 | UART |
| 37 | NRF24L01 – 2.4GHz | SPI |
| 38 | ESP8266- Wi-Fi module | UART |
| 39 | GSM module – SIM800A | UART |
| 40 | GPS module – basics | UART |
| 41 | Sonar Ultrasound – HC-04 | 2bit |
| 42 | Sonar Ultrasound – HC-05 | 2bit |
| 43 | Sharp GP2Y0A21YK0F distance sensor | analog |
| 44 | PIR module (HC-SR501) | 1bit - analog |
| 45 | control of DC Motor – by transistor | digital IO-PWM |
| 46 | L293 DC motor driver | digital IO-PWM |
| 47 | L298 DC motor driver | digital IO-PWM |
| 48 | MONSTER MOTO SHIELD VNH2SP30 DC motor driver | digital IO-PWM |
| 49 | Basics of optical encoder | digital IO |
| 50 | DC motor + encoder (RPM control) | digital IO-PWM |
| 51 | DC motor + encoder (Position control) | digital IO-PWM |
| 52 | A4988 stepper motor driver | digital IO-PWM |
| 53 | DRV8825 stepper motor driver | digital IO-PWM |
| 54 | servo motor family | PWM |
| 55 | Brushless motor family basics | PWM |
| 56 | TB6600 stepper motor driver + High RPM motor | digital IO-PWM |
| 57 | simple programs by LEDs status | digital IO |
| 58 | simple programs by push button | digital IO |
| 59 | seven segment controlled by shift register IC | digital IO |
| 60 | dot-matrix 8x8 controlled by shift-register IC | digital IO |
| 61 | RTC module DS1307 | I2C |
| 62 | RTC module DS3231 | I2C |
| 63 | control of Relay module | digital IO |
| 64 | Rotary encoder for Control inputs | digital IO |
| 65 | Buzzer control with transistor | digital IO |
| 66 | Color sensor TCS3200 | digital IO |
| 67 | SD card module (SD and uSD) | SPI |
| 68 | Ethernet module ENC28J60 | SPI |
| 69 | Ethernet Arduino Shield W5100 | SPI |
| 70 | Sound Amplifire PAM8403 | digital IO |
| 71 | mp3 player TF | UART |
| 72 | DHT family sensor for Humidity | 1bit |
| 73 | BMP 180 (pressure sensor) | I2C |
| 74 | BMP 280 (pressure sensor) | I2C |
| 75 | RFID module (RC522) | SPI |
| 76 | NFC module (5321) | SPI-I2C-UART |
| 77 | Soil humidity sensor | 1bit - analog |

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| No. | module name or electrical part | Communication Protocol |
| 78 | Load cell driver HX711 | 2bit |
| 79 | IR sensor TCRT5000 | analog-digital |
| 80 | IR sender and receiver with remote | analog-digital IO |

all data in this pages refer to this point that we can teach all the above material as well as possible but it is not enough for our goal and we should expand more our data.

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