

Project material list for 2019 international DNSM's competition

Updated : 27th. August. 2019

 ※Items below can be changed before the competition and will be noticed on the official website(<http://www.dnsn.or.kr>)

| Number | Parts | Picture | Volume | remark |
|--------|---|---|--------|-------------------------------|
| 1 | Arduino uno R3 |  | 1 | Team |
| 2 | Arduino micro mini |  | 1 | Team |
| 3 | Arduino Mega 2560 |  | | you can use whenever you want |
| 3 | Bread board mini |  | 1 | Team |
| 4 | Bread board 400 pin |  | 1 | Team |
| 6 | USB2.0 A-B Cable |  | 2 | Team |
| 7 | LM35 Temperature sensor |  | 3 | Team |
| 8 | Temperature/humidity sensor module(DHT11) |  | 2 | Team |
| 9 | HC-06 Arduino Bluetooth module |  | 2 | Team |
| 10 | 4xAA Battery | | 4 | Team |
| 11 | 4xAA Battery package |  | 1 | Team |
| 12 | 9V Battery |  | 2 | Team |
| 13 | 9V Battery holder |  | 2 | Team |
| 15 | 74HC595(Shift Register) |  | 2 | Team |
| 16 | buzzer 5V |  | 2 | Team |

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|----|--|---|----|------|
| 17 | Ultra sonic sensor HC-SR04 |  | 2 | Team |
| 18 | Servo motor(SG90) |  | 5 | Team |
| 19 | Motor driver(L298N) package |  | 1 | Team |
| 20 | L293D motor driver IC only |  | 2 | Team |
| 21 | 10K potentiometer register |  | 2 | Team |
| 22 | cds sensor |  | 3 | Team |
| 23 | Near ultra infrared ray sensor for detection of humen's motion (PIR Detector, HC-SR501) |  | 2 | Team |
| 24 | 1~12V DC motor (Hobby Motor - Gear) |  | 1 | Team |
| 25 | 5V DC motor |  | 1 | Team |
| 26 | Stepping motor for 5V + driver module package |  | 1 | Team |
| 27 | Pressure sensor |  | 2 | Team |
| 28 | fine dust detection sensor + Adaptor module |  | 1 | Team |
| 29 | 1 chennel relay module for 5V |  | 2 | Team |
| 30 | RED LED |  | 10 | Team |
| 31 | Yellow LED |  | 10 | Team |
| 32 | Green LED |  | 10 | Team |
| 33 | | | | Team |
| 34 | White LED |  | 10 | Team |

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|----|----------------------------|---|----|------|
| 35 | IR remocon |  | 1 | Team |
| 36 | IR receiver sensor |  | 1 | Team |
| 37 | Jumper MtoM 20CM 40pin |  | 1 | Team |
| 38 | Jumper MtoF 20CM 40pin |  | 1 | Team |
| 40 | 1 digit 7 segment |  | 1 | Team |
| 41 | 4 digit 7 segment |  | 1 | Team |
| 42 | 16*2 LCD I2C |  | 2 | Team |
| 43 | Push switch |  | 2 | Team |
| 44 | MAX7219 8x8 dot matrix kit |  | 1 | Team |
| 45 | 3 axis gyro(MPU6050) |  | 1 | Team |
| 46 | 220Ω Resister |  | 10 | Team |
| 47 | 1KΩ Resister |  | 10 | Team |
| 48 | 2KΩ Resister |  | 10 | Team |
| 49 | 10KΩ Resister |  | 10 | Team |
| 50 | 100KΩ Resister |  | 10 | Team |
| 51 | 1MΩ Resister |  | 10 | Team |
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|----|--|---|--------|--|
| 51 | Silicon Gun |  | 1 | Team |
| 52 | Epoxy or Bond |  | 1 | Team |
| 53 | Color fomax board(5T), 600*900 |  | 2 | Team |
| 54 | Nipper |  | 1 | Team |
| 55 | Form board(5T), 600*900 |  | 2 | Team |
| 56 | Cutter Knife |  | 1 | Team |
| 57 | 4D Frame 30cm (red, yellow, blue, green, white) |  | 20 | Team |
| 58 | 4D Frame Connection linker |  | | you can choose to use whenever you want |
| 59 | 3D printer |  | 1 | one 3D printer per Two Team |
| 60 | Non-woven fabric (3m x 3m) |  | | you can choose to use whenever you want |
| 61 | Wire(Diameter 1.2mm, Length 2m) |  | 1 | Team |
| 62 | Laser Cutter |  | | you can use whenever you want |
| 63 | If each team has the necessary sensors and equipment, you can preregister before the start of the competition and use it in the competition. | | max 10 | |