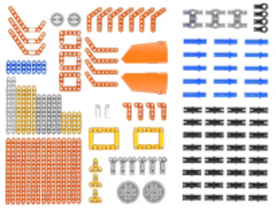
ExoNaut

Packing List

AiNova	Gripper	Pan tilt	Front bumper	Fan module	Battery charger
Temp and humidity sensor	MP3 module (SD card included)	Digital tube	Acceleration sensor	Knob sensor	RGB module
Infrared sensor	Dot matrix module	4PIN wires	Data cable	LEGO servos	 LEGO blocks
Cards	Balls and blocks	Sponge cubes	Card reader	Spanner	Accessory pack

Important Links

www.spacetrek.com

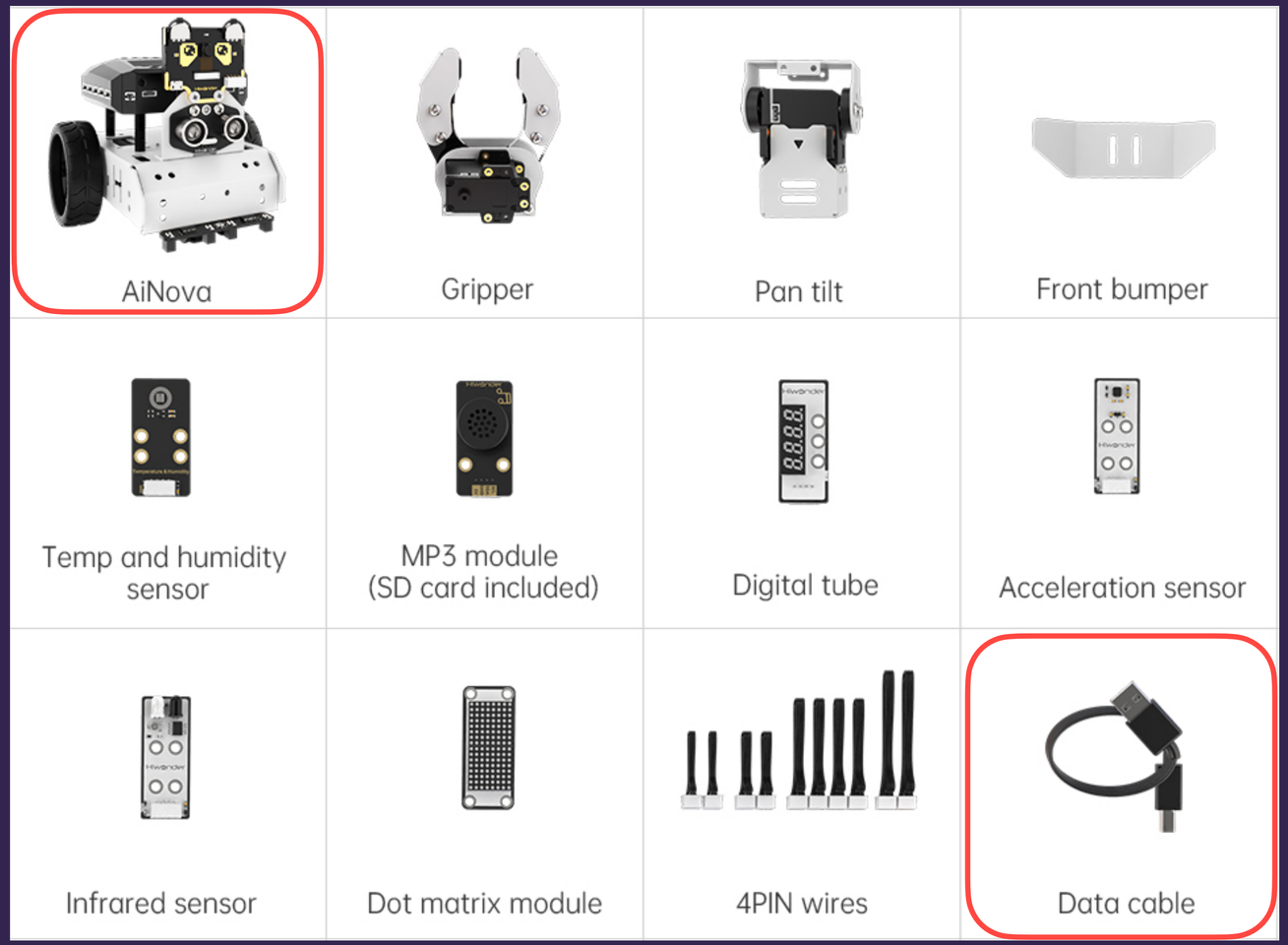
Tutorials

Videos

Work through examples...

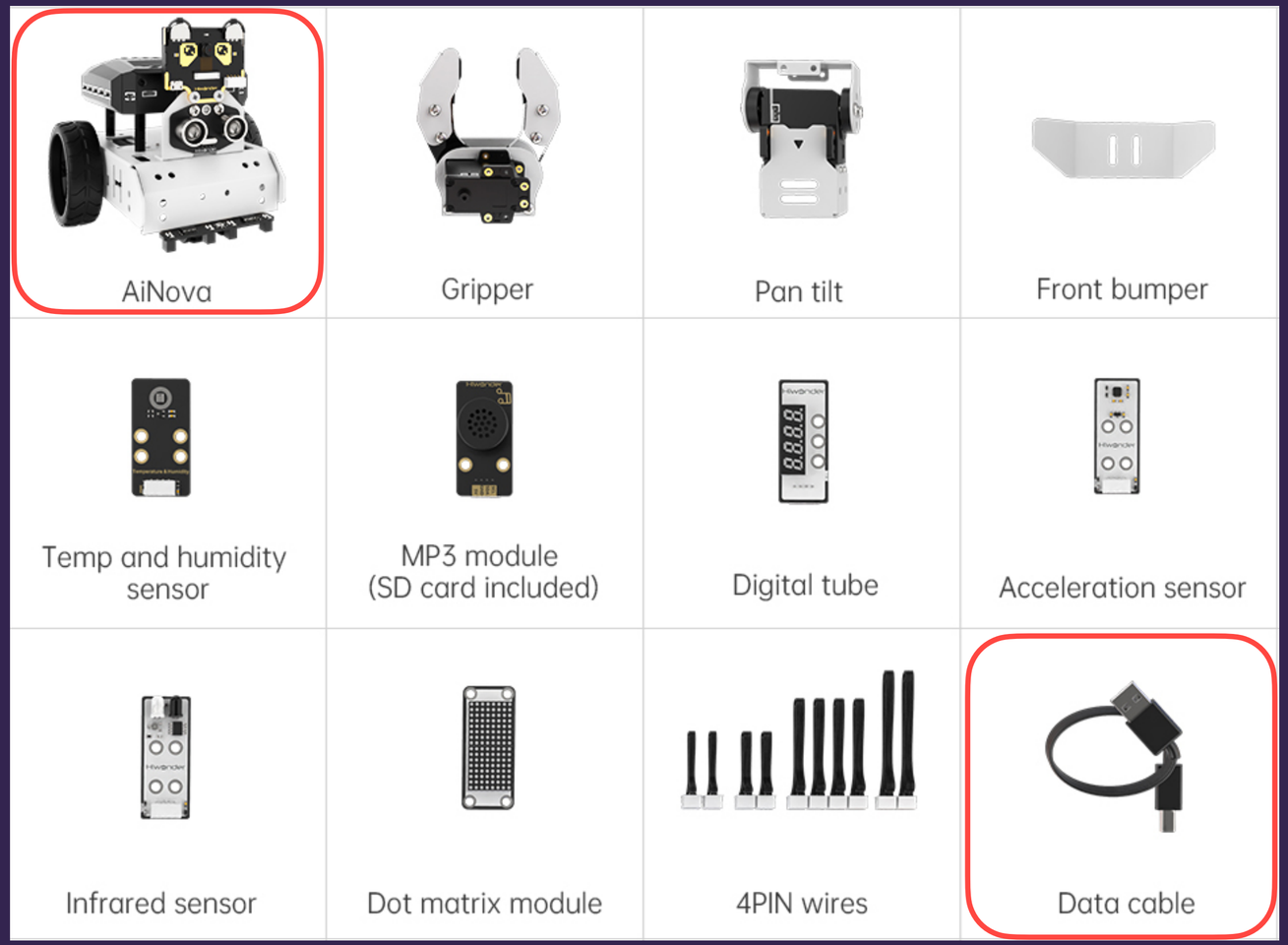
1. Hello Exonaut - Simple

   “Hello World!” Example
2. Using the Buttons
3. Buttons with Interrupt
4. CoreX LEDs
5. Go Straight



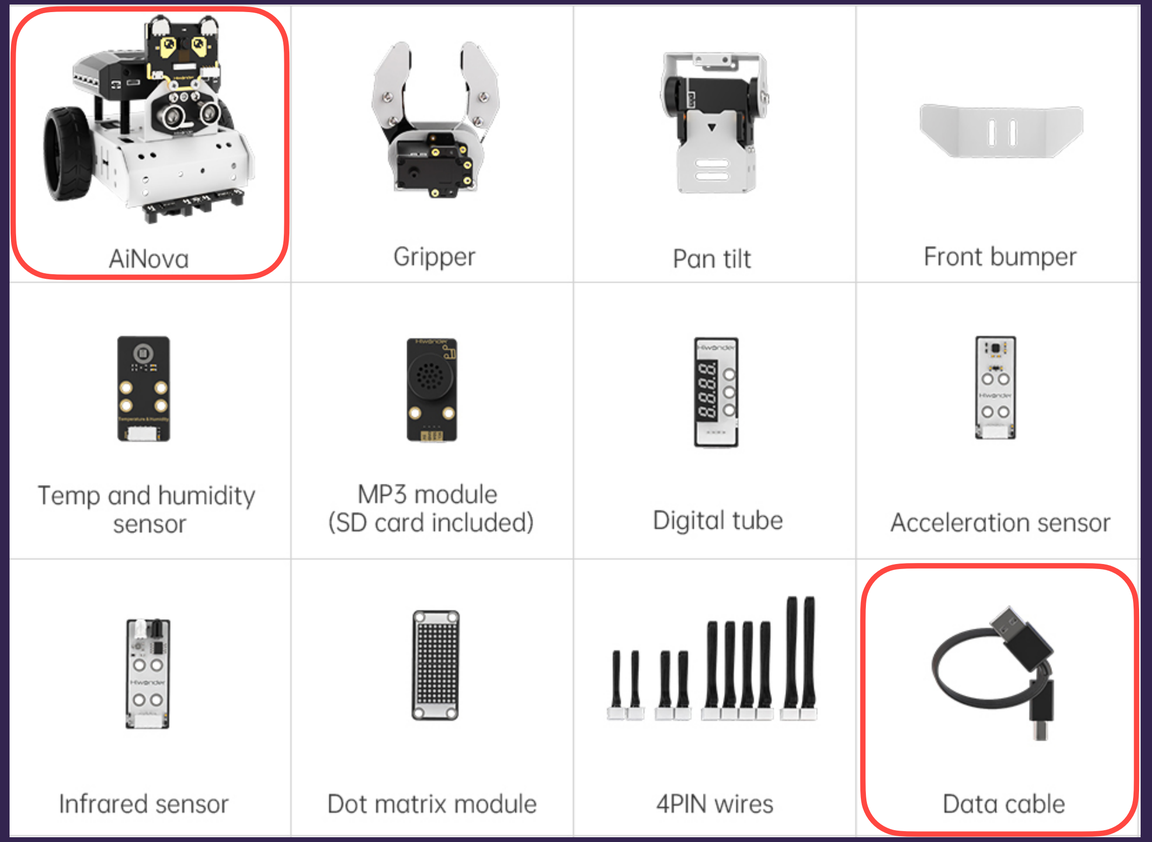
Work through examples...

6. Variable Speed
7. Turn Right
8. Pivot Right
9. Distance Sensor Stop
10. Distance Sensor Stop with Buttons
11. Distance Sensor LEDs



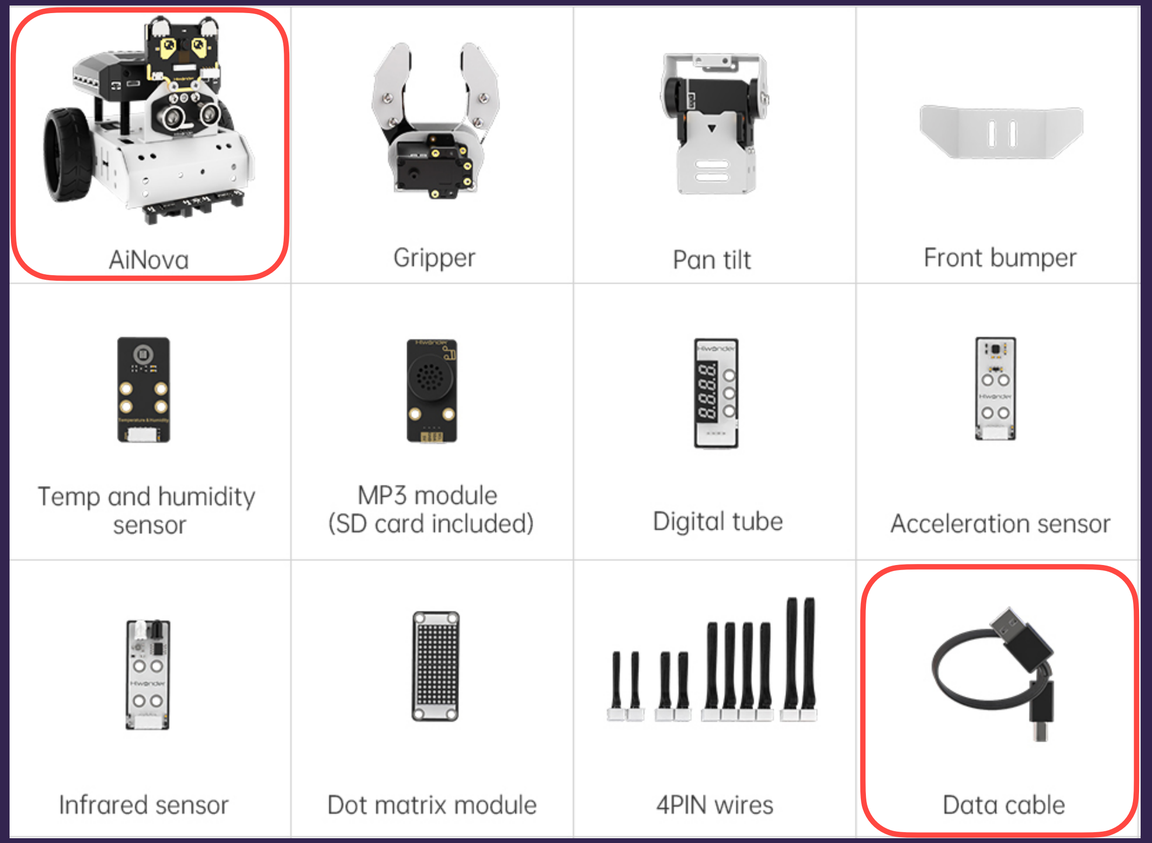
12. Line Follower Basic

```
 lf.readLineFollower(lineData);
  if(lf.CH1 && lf.CH2 && lf.CH3 && lf.CH4){
    robot.set_motor_speed(0, 0);
  }
  else if(!lf.CH1 && !lf.CH2 && !lf.CH3 && !lf.CH4)
{
    robot.set_motor_speed(0, 0);
  }
  else if(!lf.CH1 && lf.CH2 && lf.CH3 && !lf.CH4){
    robot.set_motor_speed(40, 40);
  }
  else if(!lf.CH1 && lf.CH2 && !lf.CH3 && !lf.CH4){
    robot.set_motor_speed(6, 40);
  }
  else if(!lf.CH1 && !lf.CH2 && lf.CH3 && !lf.CH4){
    robot.set_motor_speed(40, 6);
  }
  delay(10);
```



13. Line Follower Advance

```
  lf.readLineFollower(lineData);
  switch(lineData){
    case 0b0000: //all detect white
      robot.stop_motor(0);
      break;
    case 0b0001: //only sensor 1 detects black.
Sensor 2, 3 and 4 detect white
     //what to do?
      break;
```



13. Line Follower Advance

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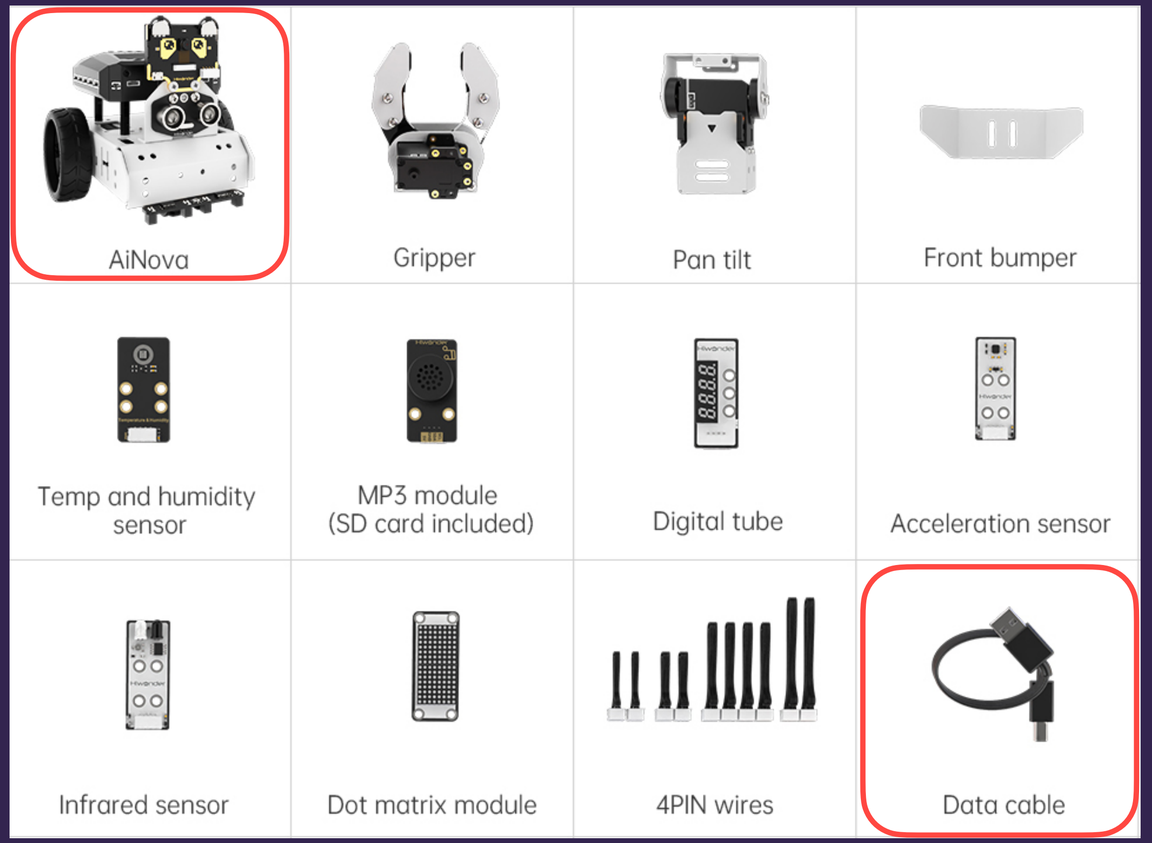
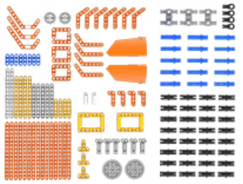
  lf.readLineFollower(lineData);
  switch(lineData){
    case 0b0000: //all detect white
      robot.stop_motor(0);
      break;
    case 0b0001: //only sensor 1 detects black.
Sensor 2, 3 and 4 detect white
     //what to do?
      break;
```



14. RGB LED Module

AiNova	Gripper	Pan tilt	Front bumper	Fan module	Battery charger
Temp and humidity sensor	MP3 module (SD card included)	Digital tube	Acceleration sensor	Knob sensor	RGB module
Infrared sensor	Dot matrix module	4PIN wires	Data cable	LEGO servos	 LEGO blocks

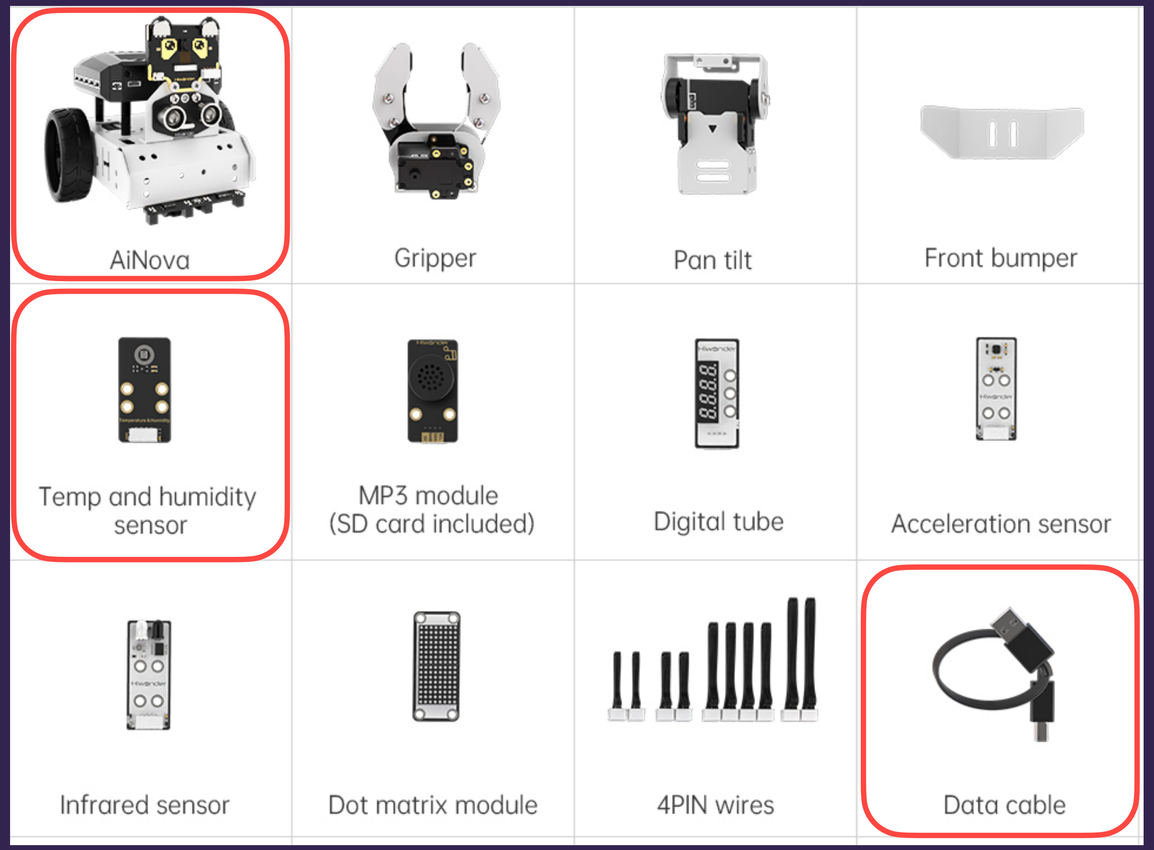
```
colorWipe(ExoNautPixelController::Color(255, 0, 0), 500);
```

15. Temperature Humidity Module

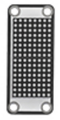
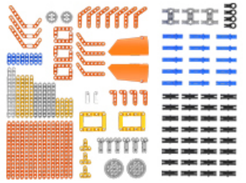
```
th.readSensor();
Serial.print("The temperature is:\t");
Serial.print(th.temperature);
Serial.println(" F”);

Serial.print("The humidity is:\t");
Serial.print(th.humidity);
Serial.println(" %rH");

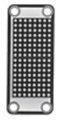
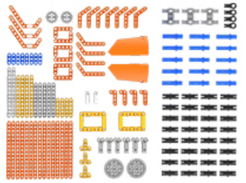
Serial.println();
delay(1000);
```



16. 7 Segment Display

AiNova	Gripper	Pan tilt	Front bumper	Fan module	Battery charger
Temp and humidity sensor	MP3 module (SD card included)	Digital tube	Acceleration sensor	Knob sensor	RGB module
Infrared sensor	 Dot matrix module	4PIN wires	Data cable	LEGO servos	 LEGO blocks

19. DOT Matrix Display - 2
20. DOT Matrix Display - 3

AiNova	Gripper	Pan tilt	Front bumper	Fan module	Battery charger
Temp and humidity sensor	MP3 module (SD card included)	Digital tube	Acceleration sensor	Knob sensor	RGB module
Infrared sensor	 Dot matrix module	4PIN wires	Data cable	LEGO servos	 LEGO blocks

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