How to connect the sensors to the Arduino

How they are connected in the sensors

|  |  |  |  |
| --- | --- | --- | --- |
| Part | GND | VCC | SIG |
| Upper Arm | Grey | Pink | Blue |
| Middle Arm | Pink | Grey | White |
| Lower Arm | Grey | Pink | Blue |
|  |  |  |  |

Lower arm wire connections:

Blue -> Blue -> Blue -> A2

Pink -> Pink -> Pink -> Grey + (VCC 5V) on Breadboard

Grey -> Grey -> - (GND) on Breadboard

Middle arm wire connections:

Pink -> Pink -> - (GND) on Breadboard

Grey -> Grey -> + (VCC 5V) on Breadboard

White -> White -> A1

Lower arm wire connections:

Blue -> Yellow -> Yellow -> A0

Pink -> Orange -> Orange -> - (GND) on Breadboard

Grey -> Red -> Red -> + (VCC 5V) on Breadboard

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sensor | GND | DT | SCK | VCC |
| Weight | Red | Grey | Black | White |

Weight sensor wire connections

Red -> Green with black tape -> - (GND) on Breadboard

Grey -> Green -> Digital 4

Black -> Grey -> Digital 5

White -> Yellow -> + (VCC 5V ) on Breadboard

The Rotation sensor is not set up to work since it causes some problems when the runtime exceeds ca. 5 minutes.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sensor | INT | ADO | SDA | SCL | GND | VCC |
| Rotation | Black | White | Brown | Red | Orange | Yellow |

Rotation senor wire connections:

Black -> Brown -> Brown -> Digital 7

White -> Brown -> - (GND) on Breadboard

Brown -> Red -> Breadboard -> White connected on the same line on breadboard as Red -> SDA

Red -> Orange -> Breadboard -> Black connected on the same line on breadboard as Orange -> SCL

Orange -> Yellow -> - (GND) on Breadboard

Yellow -> Green -> + (VCC 3.3V ) on Breadboard

You need to disconnect the cables going into SDA and SCL on the Arduino to make it work for fluently for a long time.

From the breadboard do you connect one wire from the + row (where the weight and arm sensors are connected) to the 5v port on the Arduino and 1 from the – row to GND port on the Arduino.

You do the same for the other side of the breadboard (with + and -), but here are + on the breadboard connected to the 3.3V on the Arduino.