

# Let's get those Robots moving :)

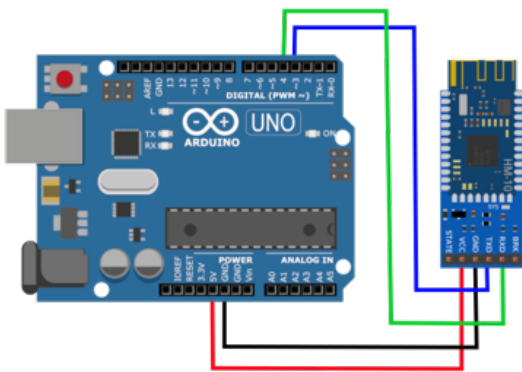
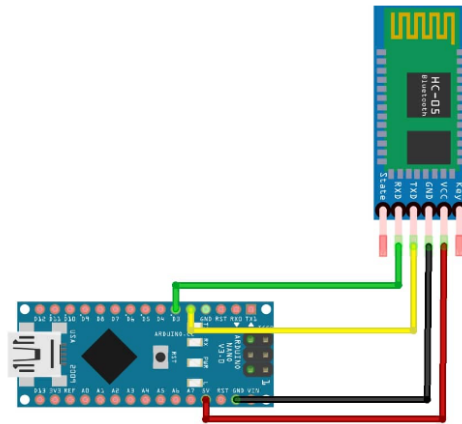
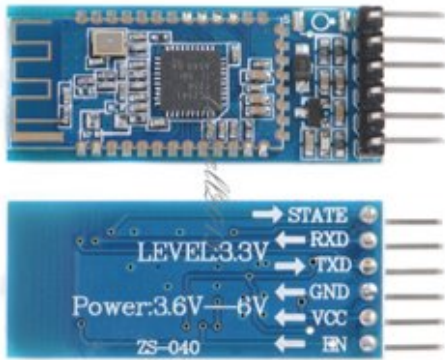
You'll need...

- Dabble app ?
- Micro-controller ?
- HM-10 Module?



# Wiring Setup

- 1 GND of HC05 to GND of Arduino Nano
- 2 VCC of HC05 to 5V of Arduino Nano
- 3 TX of HC05 to Digital Pin 2 of Arduino Nano
- 4 RX of HC05 to Digital Pin 3 of Arduino Nano



HM-10 Module	Arduino Nano
STATE	Don't worry abt it
RXD	D3
TXD	D2
GND	GND
VCC	5v
EN	Don't worry abt it

HM-10 Module	Arduino Uno
STATE	Don't worry abt it
RXD	D4
TXD	D3
GND	GND

VCC	5v
EN	Don't worry abt it

Dabble App!



We'll be using the digital mode of the Gamepad Module?

- Feel free to try any of the other modes/modules!
- You'll have 10 digital (ON or OFF) buttons you can use :)

## The Code <3

You'll need use a specific library to use the dabble app!

The library is already on the Arduino IDE so just search for it in the Library Manager.

^^^ you'll want to install the 1.5.2 version <3

Check out [this video](#) if confused on how to install a library.

Here's some [code](#) you can start with : )

```

/*
SUMOBOT CONTROLS for Dabble app and HM-10 module!!!!

    To control your bots we'll use the Gamepad module.
    The Gamepad module provides three different modes this one is set up for Digital mode.
    (check out the other modules and modes if you'd like!!)
    - Digital mode gives you 10 buttons :)

    More INFO on Dabble: https://thestempedia.com/docs/dabble/game-pad-module/
*/

//include lines 8-10 so you can work with the right library *make sure you downloaded 1.5.2
version (see pwrpoint for instructions)
#define CUSTOM_SETTINGS
#define INCLUDE_GAMEPAD_MODULE
#include <Dabble.h>

//below is the setup for the bluetooth and Serial Monitor
void setup() {
    // put your setup code here, to run once:
    Serial.begin(250000);          // IMPORTANT: make sure your Serial Monitor is also set at this
    baud rate.
    Dabble.begin(9600);          // this is the baudrate of your bluetooth
}

void loop() {
    Dabble.processInput(); //this function is used to refresh data obtained. Calling this
    function is mandatory in order to get data properly from your phone.
    Serial.print("KeyPressed: "); // This is just printing into the Serial Monitor good way to
    check if you're connected :)

/*
THE WAY IT WORKS:
    When you click one of the buttons on the app it'll register as ON in the Arduino script and
    run whatever you have under the if (GamePad.isBLAHPressed())
    ... SO instead of having Serial.print("BLAH") put in your own commands such as turning ON
    your right_motor
    ^^ These commands will depend on what functions you want and what motor driver you went
    with

FOR WHAT IS WRITTEN BELOW:
~ using the Serial.print commands below can be helpful to test that the bluetooth is
successfully connected ~
*/

    if (GamePad.isUpPressed())
    {
        Serial.print("UP");
    }

    if (GamePad.isDownPressed())
    {
        Serial.print("DOWN");
    }

    if (GamePad.isLeftPressed())
    {
        Serial.print("Left");
    }
}

```

```
if (GamePad.isRightPressed())
{
    Serial.print("Right");
}

if (GamePad.isSquarePressed())
{
    Serial.print("Square");
}

if (GamePad.isCirclePressed())
{
    Serial.print("Circle");
}

if (GamePad.isCrossPressed())
{
    Serial.print("Cross");
}

if (GamePad.isTrianglePressed())
{
    Serial.print("Triangle");
}

if (GamePad.isStartPressed())
{
    Serial.print("Start");
}

if (GamePad.isSelectPressed())
{
    Serial.print("Select");
}
Serial.print('\t');
}
```

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