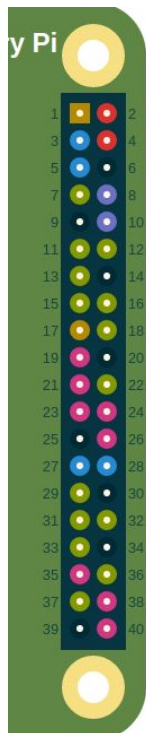


PiLo Tutorial

Part 1: Hardware

Connect the rx pin (pin 10) on the pi to pin 0 on the activity board, and connect the tx pin (pin 8) on the pi to pin 1 on the activity board.

Connect one of the 5v power pins (either pin 2 or 4) on the pi to the 5v pin on the activity board, and connect one of the ground pins (pin 6 or 34) on the pi to a ground pin on the activity board. Refer to the following pinout for finding the respective pins on the raspberry pi.



Part 2: software

Begin by installing the wiringPi library on the pi using the following commands:

```
git clone git://git.drogon.net/wiringPi  
  
cd wiringPi  
  
git pull origin  
  
./build
```

Next, use `raspi-config` to enable serial, but disable the serial console.

The pi should now be ready to use with the robot.

Part 3: code

First, use parallax SimpleIDE to open Drive.side, and upload Drive.cpp to the EEPROM on the activity board.

The example.cpp file shows a simple procedure of creating a PiLo object, sending a command, and then sending a Path object.

To start, create a PiLo object. There is only a default constructor.

Next, check PiLo.ok() to be certain that serial and wiringpi have been properly initialized. You can now send commands.

Commands have 3 parameters: the type (ticks or speed), left wheel, and right wheel. To send a command use the sendCommand() function. In the type parameter, pilo.TICKS will send a ticks command (simply drive each wheel the specified number of encoder ticks), and pilo.SPEED will send a speed command.

See PiLo.h for more on how this library works (though its not much. It is a very small library).