

Micro:bit Project Sheet 22

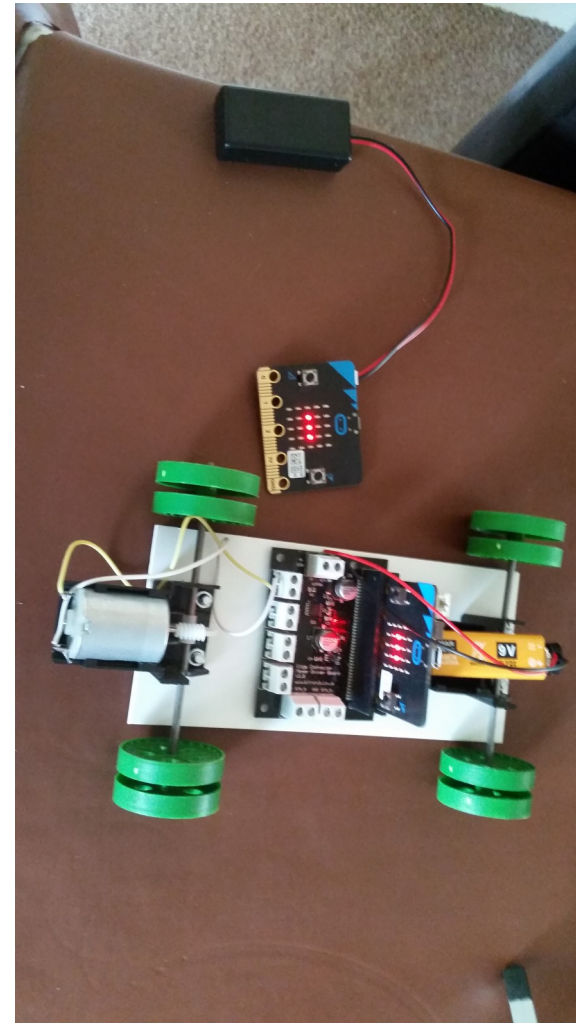
Success Criteria

- Simple remote control for a car
- Pitch controls forward and backward
- Demonstrate how to send data between Micro:bits to control a motor

Notes

- The code presented here is to demonstrate the simplicity of PXT.
- For this project I have used an old Maplin buggy kit with a single motor £5 and a Kitronik motor driver £12.50
- You need two Micro:bit devices one for the transmitter and one to receive the signal and drive the motor
- Extend this project with multiple motor for steering

My cheap buggy layout



Testing

- Does pitch forward/backwards change the direction?

PXT CODE

Sender

```
set directionTX to 0
set group 0
set transmit power 0
forever
  set directionTX to rotation (°) pitch
  if directionTX < -32
  do
    send number 1
    show leds
  else if directionTX > 32
  do
    send number 2
    show leds
  else
    send number 0
    show leds
```

Receiver

```
run in background
set RXDirection to 0
show leds
set group 0
on data received
  set RXDirection to receive number
  if RXDirection = 1
  do
    digital write pin P8 to 1
    digital write pin P12 to 0
    show leds
  else if RXDirection = 2
  do
    digital write pin P12 to 1
    digital write pin P8 to 0
    show leds
  else
    digital write pin P8 to 0
    digital write pin P12 to 0
    show leds
```