

Micro:bit Project Sheet 22

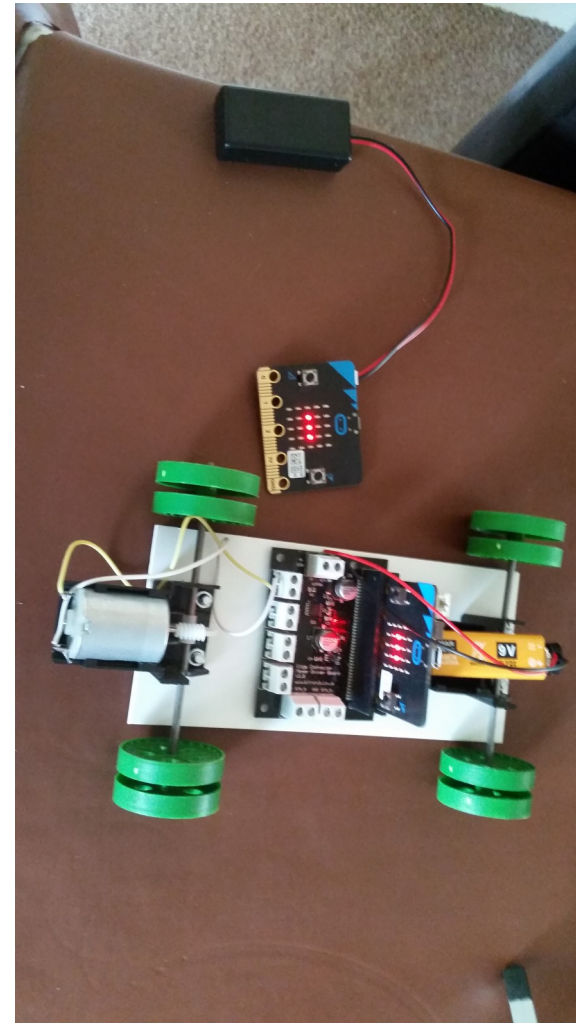
Success Criteria

- 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

```
on start
  set directionTX to 0
  radio set group 0
  radio set transmit power 0
  while true
  do
    set directionTX to (rotation(°) pitch)
    if directionTX < -32
    then
      radio send number 1
      show leds
      number 1
    else if directionTX > 32
    then
      radio send number 2
      show leds
    else
      radio send number 0
      show leds
```

Receiver

```
run in background
  set RXDirection to 0
  show leds
  radio set group 0

on radio received receivedNumber
  set RXDirection to receivedNumber
  if receivedNumber = 1
  then
    digital write pin P8 to 1
    digital write pin P12 to 0
    show leds
  else if receivedNumber = 2
  then
    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
```