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 Pat's IR 4WD Robot with lights- Keep finger on button for movement, off to stop.

 A019-Robot Buggy-Infrared

 This uses the large IR Remote M, Forwards, Backwards, Left, Right, Top Colour Buttons, Blue Front LED's, Yellow Middle LED's, Red Back LED's, Green Horn.

 IN1=10, IN2=11, IN3=5, IN4=6, Front LED's Blue=3, Back LED's Red=4, Side LED's Orange=13, Active Buzzer=9, Delay Time=500.

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#include <IRremote.h>

//#include <Tone.h>

// connect motor controller pins to Arduino digital pins

// motor one`

const int in1 = 10;

const int in2 = 11;

// motor two

const int in3 = 5;

const int in4 = 6;

// LEDs

const int ledBlue = 3;

const int ledRed = 4;

const int ledYellow = 13;

//Buzzer

const int horn = 9; //buzzer to arduino pin 9

const int delayTime = 500;

const int RECV\_PIN = 2;

//int delayTime=1000

IRrecv irrecv(RECV\_PIN);

void setup()

{

 // set all the motor control pins to outputs

 pinMode(in1, OUTPUT);

 pinMode(in2, OUTPUT);

 pinMode(in3, OUTPUT);

 pinMode(in4, OUTPUT);

 pinMode(ledBlue, OUTPUT);

 pinMode(ledRed, OUTPUT);

 pinMode(ledYellow, OUTPUT);

 pinMode(horn, OUTPUT); // Set buzzer - pin 9 as an output

 irrecv.enableIRIn(); // Start the receiver

}

void loop()

{

 decode\_results results;

 if (irrecv.decode(&results)) // if there is an IR reading

 {

 Serial.println(results.value, HEX);

 switch (results.value)

 {

 case 0x2F0:

 Serial.println("Forwards!");

 forwards();

 break;

 case 0xAF0:

 Serial.println("Backwards!");

 backwards();

 break;

 case 0x2D0:

 Serial.println("Left!");

 left();

 break;

 case 0xCD0:

 Serial.println("Right!");

 right();

 break;

 case 0xA70:

 Serial.println("Stop!");

 stop();

 break;

 case 0xF38:

 Serial.println("LedBlue!");

 LedBlue();

 break;

 case 0x338:

 Serial.println("LedRed!");

 LedRed();

 break;

 case 0x738:

 Serial.println("LedYellow!");

 LedYellow();

 break;

 case 0xB38:

 Serial.println("horn!");

 //horn();

 break;

 case 0xFF18E7:

 Serial.println("Forwards!");

 forwards();

 break;

 case 0xFF4AB5:

 Serial.println("Backwards!");

 backwards();

 break;

 case 0xFF10EF:

 Serial.println("Left!");

 left();

 break;

 case 0xFF5AA5:

 Serial.println("Right!");

 right();

 break;

 case 0xFF38C7:

 Serial.println("Stop!");

 stop();

 break;

 case 0xFFA25D:

 Serial.println("LedBlue!");

 LedBlue();

 break;

 case 0xFFE21D:

 Serial.println("LedRed!");

 LedRed();

 break;

 case 0xFF629D:

 Serial.println("LedYellow!");

 LedYellow();

 break;

 case 0xFF02FD:

 Serial.println("horn!");

 //horn();

 break;

 }

 irrecv.resume(); // Receive the next value

 }

}

void forwards()

{

 // turn on motor A

 digitalWrite(in1, HIGH);

 digitalWrite(in2, LOW);

 digitalWrite(ledBlue, HIGH);

 // turn on motor B

 digitalWrite(in3, HIGH);

 digitalWrite(in4, LOW);

 digitalWrite(ledBlue, HIGH);

 delay(delayTime);

 // stop both motors

 digitalWrite(in1, LOW);

 digitalWrite(in2, LOW);

 digitalWrite(in3, LOW);

 digitalWrite(in4, LOW);

 digitalWrite(ledBlue, LOW);

}

void backwards()

{

 // turn on motor A

 digitalWrite(in1, LOW);

 digitalWrite(in2, HIGH);

 digitalWrite(ledRed, HIGH);

 // turn on motor B

 digitalWrite(in3, LOW);

 digitalWrite(in4, HIGH);

 digitalWrite(ledRed, HIGH);

 delay(delayTime);

 // stop both motors

 digitalWrite(in1, LOW);

 digitalWrite(in2, LOW);

 digitalWrite(in3, LOW);

 digitalWrite(in4, LOW);

 digitalWrite(ledRed, LOW);

}

void right()

{

 // turn on motor A

 digitalWrite(in1, LOW);

 digitalWrite(in2, HIGH);

 digitalWrite(ledYellow, HIGH);

 // turn on motor B

 digitalWrite(in3, HIGH);

 digitalWrite(in4, LOW);

 digitalWrite(ledYellow, HIGH);

 delay(delayTime);

 // stop both motors

 digitalWrite(in1, LOW);

 digitalWrite(in2, LOW);

 digitalWrite(in3, LOW);

 digitalWrite(in4, LOW);

 digitalWrite(ledYellow, LOW);

}

void left()

{

 // turn on motor A

 digitalWrite(in1, HIGH);

 digitalWrite(in2, LOW);

 digitalWrite(ledYellow, HIGH);

 // turn on motor B

 digitalWrite(in3, LOW);

 digitalWrite(in4, HIGH);

 digitalWrite(ledYellow, HIGH);

 delay(delayTime);

 // stop both motors

 digitalWrite(in1, LOW);

 digitalWrite(in2, LOW);

 digitalWrite(in3, LOW);

 digitalWrite(in4, LOW);

 digitalWrite(ledYellow, LOW);

}

void stop()

{

 // stop both motors

 digitalWrite(in1, LOW);

 digitalWrite(in2, LOW);

 digitalWrite(in3, LOW);

 digitalWrite(in4, LOW);

 digitalWrite(ledBlue, LOW);

 digitalWrite(ledRed, LOW);

 digitalWrite(ledYellow, LOW);

 // digitalWrite(buzzer, LOW);

}

void LedBlue()

{

 digitalWrite(3, HIGH);

 delay(delayTime);

 digitalWrite(3, LOW);

}

void LedRed()

{

 digitalWrite(4, HIGH);

 delay(delayTime);

 digitalWrite(4, LOW);

}

void LedYellow()

{

 digitalWrite(13, HIGH);

 delay(delayTime);

 digitalWrite(13, LOW);

}

//void loop)

//{

 //tone(horn, 500); // Send 1KHz sound signal...

 //delay(1000); // ...for 1 sec

 //noTone(horn); // Stop sound...

 //delay(1000); // ...for 1sec

//}