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//
// exercise 11.1rx - http://tronixstuff.com/tutorials > Chapter 11
//
// receive the signals from the tx unit and decode them into instructions
//
// based on code by Mike McCauley 2010 http://www.open.com.au/mikem/arduino
//
//

// Need these lines below //////////////////////////////////
#include <VirtualWire.h>
#undef int
#undef abs
#undef double
#undef float
#undef round
uint8_t buf[VW_MAX_MESSAGE_LEN]; // this is an array of unsigned integers 8-bits long. In other words,
bytes between 0 and 65535
uint8_t buflen = VW_MAX_MESSAGE_LEN;

int red = 2;
int yellow = 4;
int green = 6;

////////////////////////////////////
void setup()
{
  pinMode(red, OUTPUT); // for our LEDs
  pinMode(yellow, OUTPUT);
  pinMode(green, OUTPUT);
  // wake up the wireless receiver
  vw_set_ptt_inverted(true); // need this line
  vw_setup(2400); // sets speed of data reception.
  vw_set_rx_pin(0); // this is the RX pin number - 0 on a Duemilanove
  vw_rx_start(); // start the receiver!
}

void loop()
{
  // check to see if there is received data in the buffer, and that it came through correctly.
  // if the message didn't come through completely, it will be ignored
  if (vw_get_message(buf, &buflen))
  {
    switch(buf[0])
    {
      case 'a':
        digitalWrite(red, LOW);
        break;
      case 'b':
        digitalWrite(red, HIGH);
        break;
      case 'c':
        digitalWrite(yellow, LOW);
        break;
      case 'd':
        digitalWrite(yellow, HIGH);
        break;
      case 'e':
        digitalWrite(green, LOW);
        break;
      case 'f':
        digitalWrite(green, HIGH);
    }
  }
}
```