```
// FILE: 485Master1_0.nxc - Works!
// DATE: 09/26/16 12:45
// AUTH: P.Oh
// DESC: Two NXT bricks connected together on their Port S4 (i.e. RS-485
communications)
//       This code runs on Master brick.  485Slave1_0.nxc runs on Slave brick.
//       As long as Slave is on and sending messages, Master iterates and displays
number

inline void WaitForMessageToBeSent()
{
  while(RS485SendingData())
  Wait(MS_1);
}

task main() {
  UseRS485();  // (1) Port S4 configured for RS485
  RS485Enable();  // (2) turn on RS485
  RS485Uart(HS_BAUD_DEFAULT, HS_MODE_DEFAULT);  // (3) initialize UART to default
values
  Wait(MS_1);  // (4) wait a bit so all's activated

  int i;
  byte buffer[];
  string msg;
  byte cnt;

  while (true) {
    msg = "Master " + NumToStr(i);
    TextOut(0, LCD_LINE1, msg);
    // send the # of bytes (5 bytes)
    cnt = ArrayLen(msg);
    SendRS485Number(cnt);
    WaitForMessageToBeSent();

    // wait for ACK from recipient
    until(RS485DataAvailable());
    RS485Read(buffer);

    // now send the message
    SendRS485String(msg);
    WaitForMessageToBeSent();

    // wait for ACK from recipient
    until(RS485DataAvailable());
    RS485Read(buffer);

    i++;
  }

  // disable RS485 (not usually needed)
  RS485Disable();
} // end of main
```