Workshop 8: RFID



1 Description

Today we will unlock a pc while using RFID.

2 Equipment

- Arduino UNO



- RFID sensor



- RFID Cart/Tag

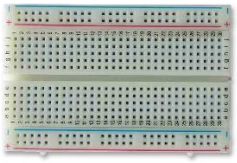




- Wires



- Breadboard



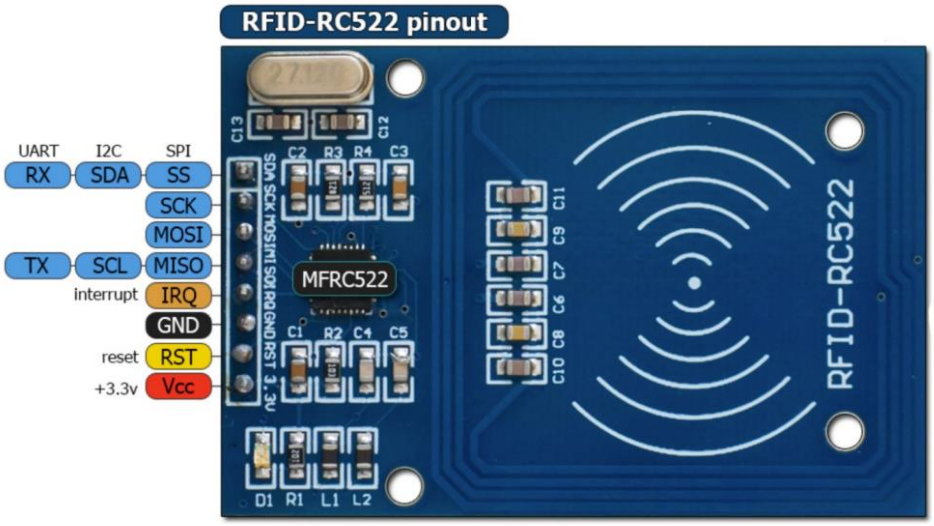
3 Datasheet

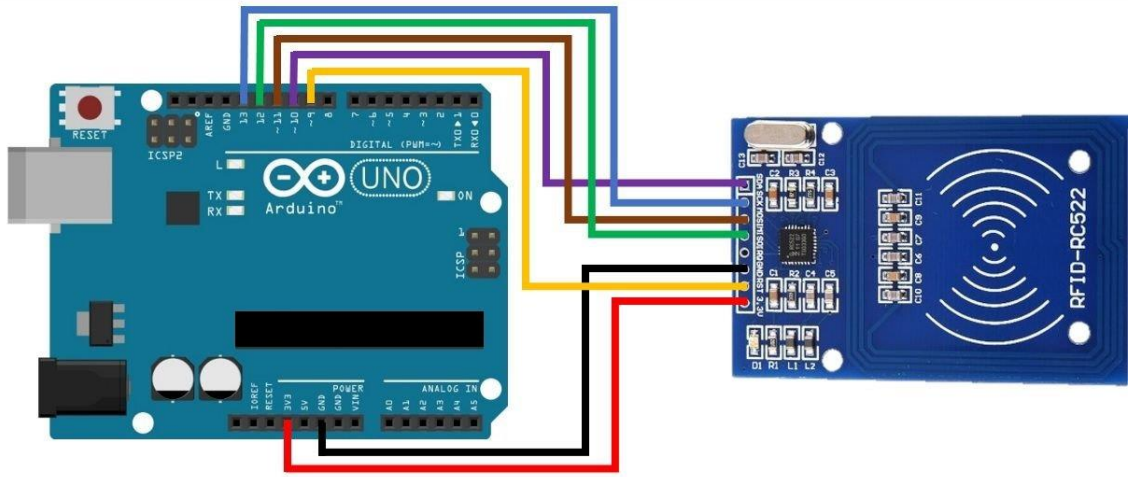
RFID-RC5222 is a digital sensor:

https://www.nxp.com/docs/en/data-sheet/MFRC522.pdf



4 Schematic





5 Read the cart number

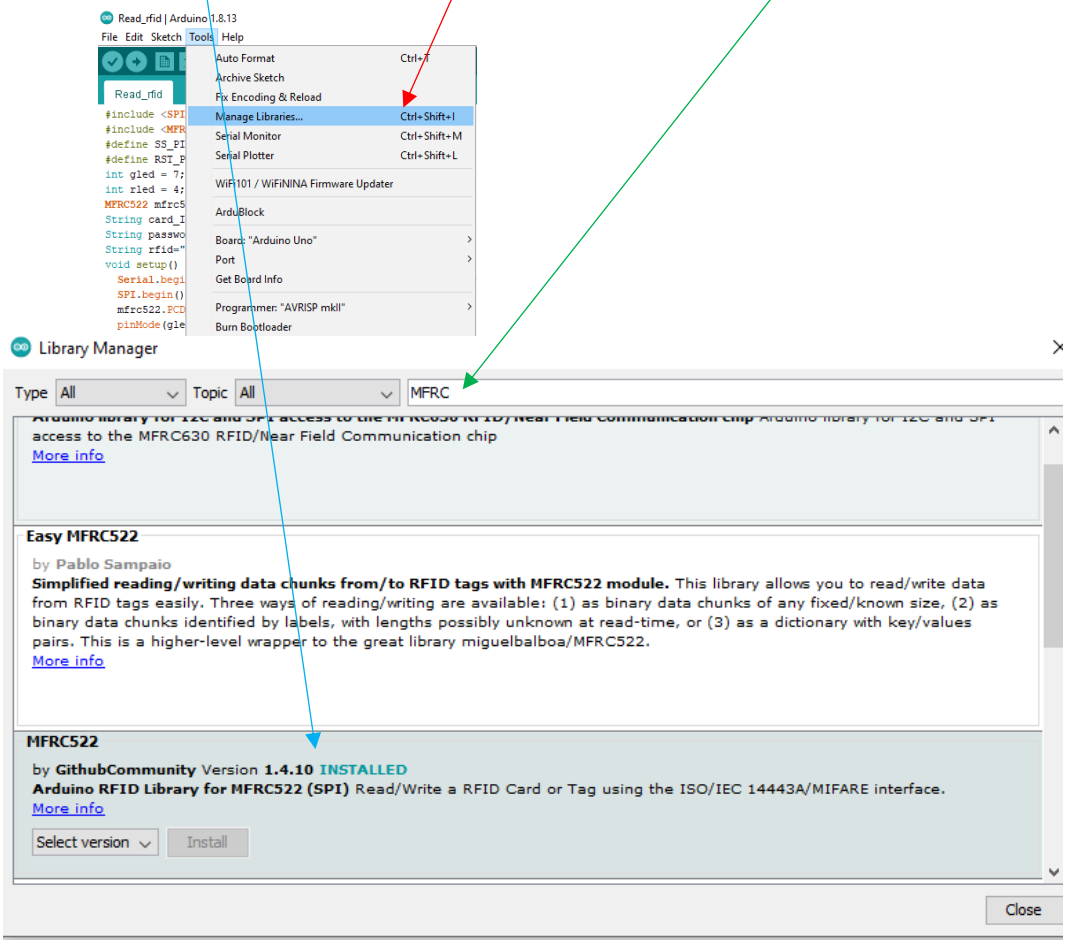
Download the code (Read_rfid.ino) with the link. And instal the library.

https://github.com/MaximTampere/RFID-Workshop

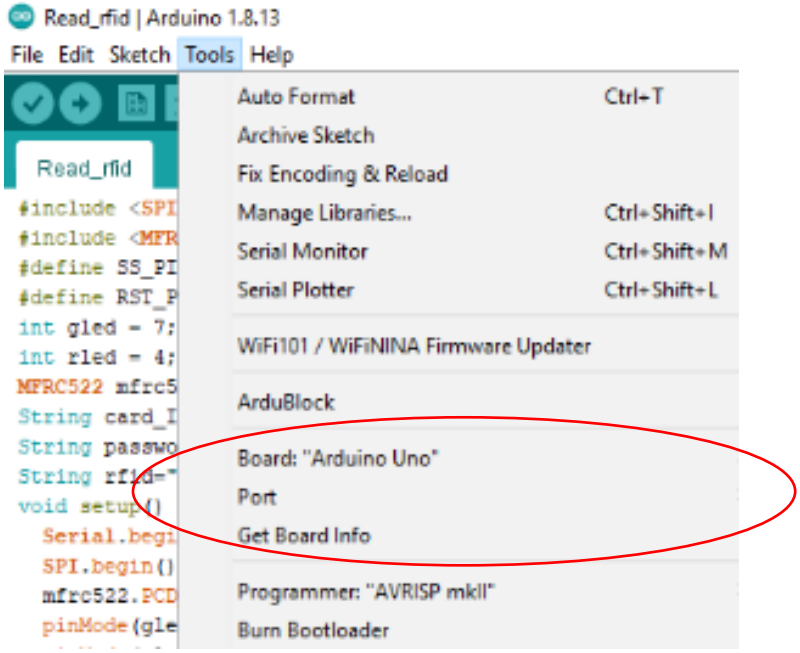




Then go to tools and press on Manage Libraries. Type in the search bar MFRC and install the MFRC522



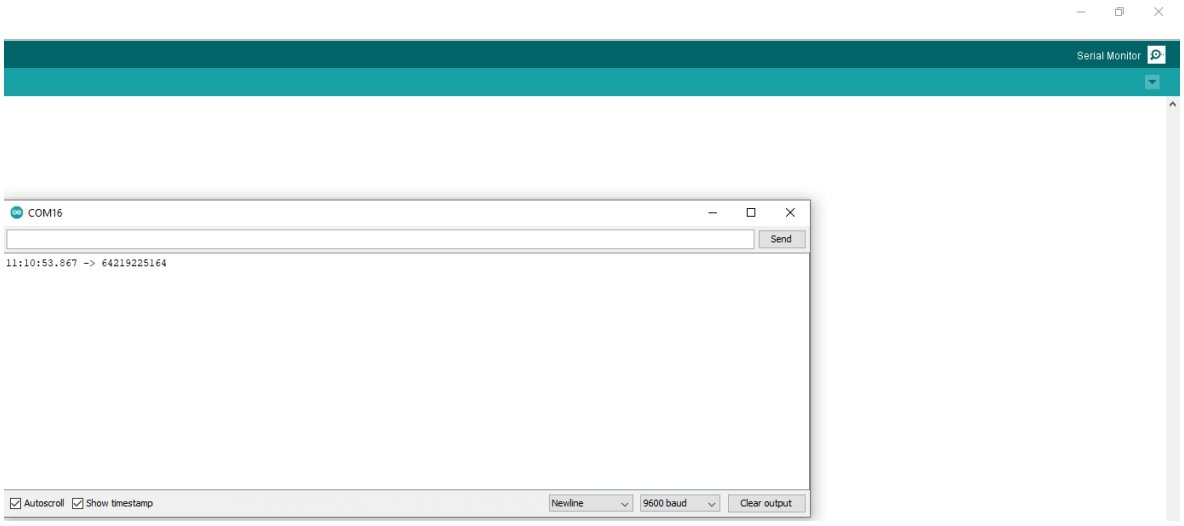
Now make sure you selected the right COM, chose the right board (Arduino UNO) sand the pins are connected as they should



Now upload de code to the arduino



When that is done open the serial monitor and scan your card/tag than you will see the code of your card/tag. Copy this code.



6 Upload the code

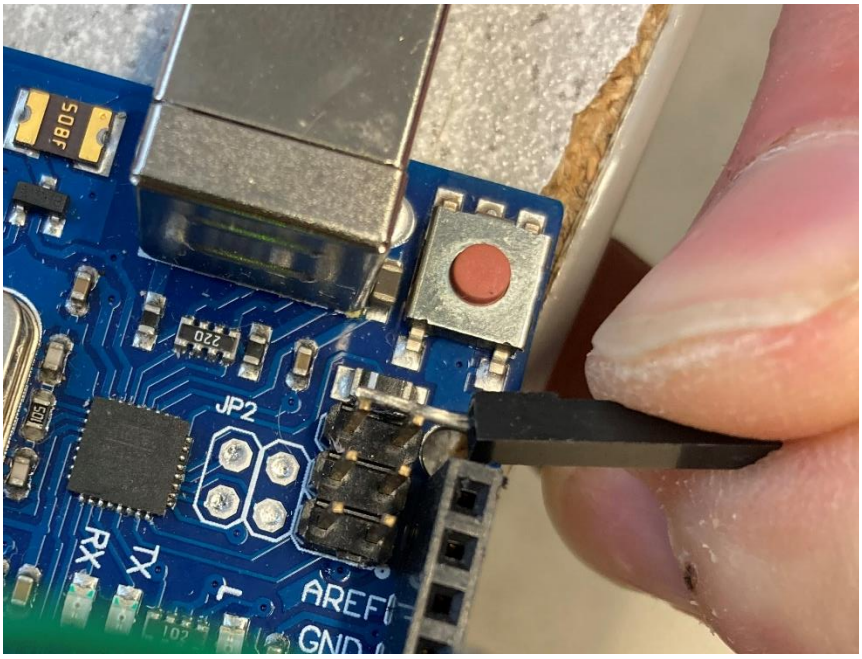
Upload the code (Rfid_log_in) in Arduino.

```
uint8_t buf[8] = { 0 };
#include <SPI.h>
#include <MFRC522.h> // RFID library
#define SS_PIN 10 //RX slave select
#define RST_PIN 9
int gled = 7; // optional
int rled = 4;// optional
MFRC522 mfrc522(SS_PIN, RST_PIN); // Create MFRC522 instance.
String card_ID=""; //
String password="password " ; // Change It To Your Windows / fb / any Account's Password
String rfid="rfid card code";// UID (unique Id Code Of Your Rfid Tag)
void setup() {
  Serial.begin(9600); // Initialize serial communications with the PC
  SPI.begin();  // Init SPI bus
  mfrc522.PCD Init(); // Init MFRC522 card
```

Change the password and the Rfid cart code to your password and cart code

7 Install flip installer

short the two pins of the Arduino





8 Windows Rfid login

https://github.com/MaximTampere/RFID-Workshop

Download the map from the link above (Windows Rfid Login). And open the map and start the programme (TurnIntoKeyboard.bat). Replug your arduino back in the PC. And try it out for your self.