

```
#include <SPI.h>

#include <MFRC522.h>

#define SS_PIN 10 // Slave Select pin for RFID
#define RST_PIN 9 // Reset pin for RFID

#define RED_LED_PIN 7 // Pin for the Red LED
#define GREEN_LED_PIN 5 // Pin for the Green LED

MFRC522 rfid(SS_PIN, RST_PIN); // Create MFRC522 instance

void setup() {
  Serial.begin(9600); // Initialize serial communication
  SPI.begin(); // Initialize SPI bus
  rfid.PCD_Init(); // Initialize RFID reader

  pinMode(RED_LED_PIN, OUTPUT); // Set Red LED pin as output
  pinMode(GREEN_LED_PIN, OUTPUT); // Set Green LED pin as output

  digitalWrite(GREEN_LED_PIN, HIGH); // Turn on Green LED to indicate system is ready
  Serial.println("Place your RFID tag on the reader...");
}

void loop() {
  // Look for new RFID cards
  if (rfid.PICC_IsNewCardPresent() && rfid.PICC_ReadCardSerial()) {
    digitalWrite(GREEN_LED_PIN, LOW); // Turn off Green LED
    digitalWrite(RED_LED_PIN, HIGH); // Turn on Red LED
  }
}
```

```
Serial.print("Tag UID: ");

// Print RFID UID
for (byte i = 0; i < rfid.uid.size; i++) {
  Serial.print(rfid.uid.uidByte[i] < 0x10 ? " 0" : " ");
  Serial.print(rfid.uid.uidByte[i], HEX); // Print each byte of the UID in hexadecimal
}
Serial.println(); // Move to the next line after printing the UID

// Halt PICC (stop reading the tag)
rfid.PICC_HaltA();

delay(1000); // Wait for a second before turning off the Red LED

digitalWrite(RED_LED_PIN, LOW); // Turn off Red LED
digitalWrite(GREEN_LED_PIN, HIGH); // Turn on Green LED
}
}
```