1. *// include*
2. #include <LiquidCrystal.h>
3. #include <Keypad.h>
4. #include <Servo.h>
5. #include <SPI.h>
6. #include <RFID.h>
8. *// instance*
9. LiquidCrystal lcd(42, 41, 35, 34, 33, 32); *// LCD*
10. Keypad myKeypad= Keypad(makeKeymap(keymap), rowPins, colPins, numRows, numCols); *// Clavier*
11. Servo myservo; *// Serrure*
12. RFID rfid(53, 5); *//RFID*

15. *// variables*
17. *// Code bonne cle : 84, 6B, 49, 2E, 88*
18. int serNum0=0x84;
19. int serNum1=0x6B;
20. int serNum2=0x49;
21. int serNum3=0x2E;
22. int serNum4=0x88;
24. *// Clavier*
25. const byte numRows= 4;
26. const byte numCols= 4;
27. char keymap[numRows][numCols]=
28. {
29. {'1', '4', '7', '\*'},
30. {'2', '5', '8', '0'},
31. {'3', '6', '9', '#'},
32. {'A', 'B', 'C', 'D'}
33. };
34. byte colPins[numRows] = {29,28,27,26}; *//Rows 0 to 3*
35. byte rowPins[numCols]= {25,24,23,22}; *//Columns 0 to 3*
37. *// Temoin*
38. int rouge = 8;
39. int vert = 9;
41. *// ----*
42. int index = 0;
43. String code;
44. String motdepasse;
45. bool testCle, testCode;
47. *// setup*
48. void setup() {
49. lcd.begin(16, 2);
50. SPI.begin();
51. rfid.init();
53. code = String("0000");
54. motdepasse = String("1235");
56. pinMode(rouge, OUTPUT);
57. pinMode(vert, OUTPUT);
59. lcd.clear();
61. myservo.attach(10);
62. myservo.write (20);
63. lcd.write("CLE");
64. testCle = **false**;
65. testCode = **false**;
66. }
68. *// loop*
69. void loop() {
70. digitalWrite(rouge,1);
71. char keypressed = myKeypad.getKey();
73. *// TEST bonne cle ET bon code*
74. if (testCode && testCle){
76. *// affichage LCD*
77. lcd.clear();
78. lcd.setCursor(0, 0);
79. lcd.print("CODE : ");
80. lcd.print(code);
81. lcd.setCursor(0, 1);
82. lcd.print("CORRECT");
84. *// temoin OK*
85. digitalWrite(rouge,0);
86. digitalWrite(vert,1);
88. *// ouverture serrure*
89. myservo.write (100);
90. delay(5000); *// attend 5 secondes*
92. *// temoin PAS OK*
93. digitalWrite(rouge,1);
94. digitalWrite(vert,0);
96. *// fermeture serrure*
97. myservo.write (20);
98. testCle = **false**;
99. testCode = **false**;
100. lcd.clear();
101. }
103. *// TEST bonne cle ET mauvais code*
104. if(testCle && !testCode){
105. lcd.setCursor(0, 0);
106. lcd.print("CODE ?");
107. digitalWrite (rouge,0);
108. delay (200);
109. digitalWrite (rouge,1);
110. if (keypressed != NO\_KEY) {
111. lcd.setCursor(index, 1);
112. lcd.print(keypressed);
113. code[index] = keypressed;
114. index++;
115. }
116. if (index == 4) {
117. index = 0;
118. if (code == motdepasse) {
119. *// code OK*
120. testCode = **true**;
121. }
122. else {
123. *// code PAS OK*
124. lcd.setCursor(0, 0);
125. lcd.print("CODE : ");
126. lcd.print(code);
127. lcd.setCursor(0, 1);
128. lcd.print("INCORRECT");
129. testCode = **false**;
130. testCle = **false**;
131. }
132. lcd.clear();
133. }
134. }
136. *// TEST mauvaise cle*
137. if (!testCle) {
138. lcd.setCursor(0,0);
139. lcd.print("CLE");
140. if (rfid.isCard()) {
141. if (rfid.readCardSerial()) {
142. if (rfid.serNum[0] != serNum0
143. && rfid.serNum[1] != serNum1
144. && rfid.serNum[2] != serNum2
145. && rfid.serNum[3] != serNum3
146. && rfid.serNum[4] != serNum4
147. ) {
148. *// cle PAS OK*
149. lcd.clear();
150. lcd.write("CLE INCORRECT");
151. delay (2000);
152. lcd.clear ();
153. lcd.write ("CLE");
154. } else {
155. *// cle OK*
156. lcd.clear();
157. testCle = **true**;
158. }
159. }
160. }
162. rfid.halt();
163. }
165. }