`default\_nettype none

module SixCharMessage(

input [47:0] plaintext,

output [47:0] cyphertext

);

SecretCodeMachine SC0(cyphertext[7:0], plaintext[7:0]);

SecretCodeMachine SC1(cyphertext[15:8], plaintext[15:8]);

SecretCodeMachine SC2(cyphertext[23:16], plaintext[23:16]);

SecretCodeMachine SC3(cyphertext[31:24], plaintext[31:24]);

SecretCodeMachine SC4(cyphertext[39:32], plaintext[39:32]);

SecretCodeMachine SC5(cyphertext[47:40], plaintext[47:40]);

endmodule