FUNCTIONAL TABLE

Encryption

Plaintext										Key			Ciphertext
Plaintext	IP	Round 1	P-box	L-R XOR 1	4-bit Swap		Round 2	P-box	L-R XOR 2	Key	Subkey K1	Subkey K2	
					Left	Right							
10110110	01111001	0010	0010	0101	1001	0101	0011	0110	1111	0100001101	01001010	10001100	11100111
01101101	11100110	0000	0000	1110	1110	0110	0011	0110	0000	1011110111	10111111	11111011	00011001
0101100	10001010	0010	0010	1010	1010	1010	1000	0001	1011	0101111010	01110001	00110110	11111000

Decryption

Ciphertext										Key			Decrypted
Ciphertext	IP	Round 1	P-box	L-R XOR 1	4 -bit Swap		Round 2	P-box	L-R XOR 2	Key	Subkey K1	Subkey K2	
					Left	Right							
11100111	11110101	0011	0110	1010	0101	1001	0010	0010	0111	0100001101	10001100	01001010	10110110
00011001	00001110	0011	0110	1010	1110	0110	0000	0000	1110	1011110111	11111011	10111111	01101101
11111000	10111010	1000	0001	1010	1010	1010	0010	0010	1000	0101111010	00110110	01110001	0101100