Instruction	opCode(31-21)		AA	A	B	C	D	E		G	H	ALU controls
	10 9 8765 4321											
R-type												
add	100 0101 1000		0	0	0	0	0	0		1	0	0010
sub	110 0101 1000		0	0	0	0	0	0		1	0	0110
and	100 0101 0000		0	0	0	0	0	0		1	0	0000
or	101 0101 0000		0	0	0	0	0	0		1	0	0001
Load/Store												
ldur	111 1100 0010		0	0	1	1	0	1		1	x	0010
stur	111 1100 0000		0	0	x	0	1	1		0	1	0010
Conditional Branch												
cbz	101 1010 0xxx		0	1	x	0	0	0		0	1	0011
Unconditional Branch												
b	000 101x xxxx		1	0	x	0	0	x		0	x	xxxx

Controls
AA   Unconditional Branch
A   Conditional Branch (cbz)
B   MemToReg
C   MemRead
D   MemWrite
E   ALUSrc
F   ALUOp bit1, bit 0
G   RegWrite
H   Reg2Loc