What Do We Need for a Debugger?

ARM Cortex-M via ADIv5 / MEM-AP

Memory

- ? Peek
- ? Poke

Registers

- ? Read
- ? Write

Control

- ? Halt
- ? Step
- ? Reset
- ? Break

Actually Using JTAG

				Table B3-3 Standard IR instructions
4-bit IR instruction value	8-bit IR instruction value	Data register	DR scan length	Notes
0b0xxx	0b0xxxxxxx	-	•	IMPLEMENTATION DEFINED extensions to the IR instruction set on page B3-93.
-	0b10000000- 0b11110111	-		Reserved.
0b1000	0b11111000	ABORT	35	-
0b1001	0b11111001	-	-	Reserved.
0b1010	0b11111010	DPACC	35	See DPACC and APACC, JTAG-DP DP, and AP Access registers on page B3-98.
0b1011	0b11111011	APACC	35	
0b110x	0b1111110x	-	-	Reserved.
0b1110	0b11111110	IDCODE	32	-
0b1111	0b1111111	BYPASS	1	Required by JTAG specification.

From: Arm Debug Interface Architecture Specification ADIv5.0 to ADIv5.2