

15-819K: Logic Programming

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Frank Pfenning

December 2006

This is the collection of all papers and reports cited in the lecture notes.

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Programmable logic controllers 15. expensive as program faults can be detected and corrected early on during development. Likewise, Rockwell Automation have RSLogix for the Allen-Bradley PLC-5 family of PLCs, OMRON has CX-One and Telemecanique have ProWorx 32 for its Modicon range of PLCs. This change in inductance can be monitored using a resonant circuit, the presence of the ferrous metal object thus changing the current in that circuit. The current can be used to activate an electronic switch circuit and so give an on/off device. The range over which such objects can be detected is typically about 2 to 15 mm.

### 2.1.3 Photoelectric sensors and switches.

Logic programming is a programming paradigm which is largely based on formal logic. Any program written in a logic programming language is a set of sentences in logical form, expressing facts and rules about some problem domain. Major logic programming language families include Prolog, answer set programming (ASP) and Datalog. In all of these languages, rules are written in the form of clauses:  $H :- B_1, \dots, B_n.$  and are read declaratively as logical implications: H if  $B_1$  and  $\dots$  and  $B_n$ .