

Input Syllogism

Premise Retrieval(ST2/ST4 only):
Deepseek + Keyword Fallback



Layer 1: Regex Rule System (ST1 only)

Regex Passing
A/E/I/O types

Mood + Figure
Computation

24 Valid Forms
Lookup tables

**Valid/
Invalid**

fail



Layer2: LLM Symbolic Passing (Deepseek-V3.2)

LLM Passing
JSON (types, subjects,
predicates)

Mood + Figure
Fuzzy Term
Matching

24 Valid Forms
Lookup tables

**Valid/
Invalid**

fail



Layer3: Neural Model Ensemble (Fallback)

DeBERTa-v3-large + LoRA
ST1 / ST2 (English)

XLM-RoBERTa-large + LoRA
ST3 / ST4 (Multilingual)

**Valid/
Invalid**