

# Pulses as Pattern Grammar of Real Life

In Intention Space, a Pulse is not merely a computational unit or a state trigger. It is a real-world semantic fragment — a phrase, an action, a perceptible state — that captures the essence of human activity in its smallest, repeatable form. Across professions and disciplines, humans operate through patterned behavior, which can be decomposed into recognizable, recombining pulses. These pulses form what can be seen as a Pattern Grammar of Real Life.

## ***1. Pulses Are Semantic Units of Practice***

Each Pulse reflects a named moment of intent or effect — 'mix\_dry', 'anchor\_vein', 'add\_oil'. They are the observable tokens of meaningful human effort.

## ***2. Domains Reuse and Recombine Pulses***

Pulses recur across domains: 'knead' appears in both baking and sculpting; 'dry\_surface' applies in painting and ceramics. Each domain reconfigures them into task-specific flows.

## ***3. Pulse Sets Encode Expertise***

The full set of pulses used in a given task (a 'Pulse Signature') can be seen as a behavioral DNA. Recording and analyzing these can help teach, transfer, and replicate expertise.

## ***4. Pulses Enable Semantic Mapping***

Similar pulse sets between tasks allow semantic bridging. For example, 'prepare\_pan', 'apply\_heat' link cooking and metalwork.

## ***5. From Observation to Intention***

While Intention governs what is to be done, Pulses reveal how it is enacted. Capturing real pulses allows grounded, verifiable mapping from perception to design intent.

## **Conclusion**

Pulses are the cognitive atoms of human-doing. By recording them across contexts — artistic, manual, cultural, athletic — we can build a living, evolving grammar of practice. Intention Space provides the architecture to treat these pulses not only as software signals, but as social and cognitive primitives. Capturing them faithfully can bridge human knowledge, machine learning, and action design in a way that respects real human diversity and domain specificity.