

```
@dataclass(frozen=True)
class DecodingOptions:
    # whether to perform X->X "transcribe" or X->English "translate"
    task: str = "transcribe"

    # language that the audio is in; uses detected language if None
    language: Optional[str] = None

    # sampling-related options
    temperature: float = 0.0
    sample_len: Optional[int] = None # maximum number of tokens to sample
    best_of: Optional[int] = None # number of independent sample trajectories, if t > 0
    beam_size: Optional[int] = None # number of beams in beam search, if t == 0
    patience: Optional[float] = None # patience in beam search (arxiv:2204.05424)

    # "alpha" in Google NMT, or None for length norm, when ranking generations
    # to select which to return among the beams or best-of-N samples
    length_penalty: Optional[float] = None

    # text or tokens to feed as the prompt or the prefix; for more info:
    # https://github.com/openai/whisper/discussions/117#discussioncomment-3727051
    prompt: Optional[Union[str, List[int]]] = None # for the previous context
    prefix: Optional[Union[str, List[int]]] = None # to prefix the current context

    # list of tokens ids (or comma-separated token ids) to suppress
    # "-1" will suppress a set of symbols as defined in `tokenizer.non_speech_tokens()`
    suppress_tokens: Optional[Union[str, Iterable[int]]] = "-1"
    suppress_blank: bool = True # this will suppress blank outputs

    # timestamp sampling options
    without_timestamps: bool = False # use <|notimestamps|> to sample text tokens only
    max_initial_timestamp: Optional[float] = 1.0

    # implementation details
    fp16: bool = True # use fp16 for most of the calculation
```