Motived by recent developments in logarithmic conformal field theory, we introduce a category of logarithmic modules for certain quantum groups at root of unity. This is a natural extension of the well-studied category of finite-dimensional weight modules. We will present several results on the structure of the logarithmic category for the unrolled quantum group of \( \mathfrak{sl}_2 \). Our results allow us to make prediction about categories of logarithmic modules for certain vertex algebras. (Received January 14, 2017)