For an integer $k \geq 2$, we consider the $k$–Fibonacci sequence $(F_n^{(k)})_n$ which starts with $0, \ldots, 0, 1$ ($k$ terms) and each term afterwards is the sum of the $k$ preceding terms. In this talk, we report about some arithmetic properties of $(F_n^{(k)})_n$ and study some Diophantine equations involving $k$–Fibonacci numbers. This is a joint work with Carlos Gómez and Florian Luca.