search_succ[4,23]

$\forall k{:}\mathbb{N},\ P{:}(\mathbb{N}_{<k+1} \to \mathbb{B})$.
search(k+1;P) = if $P(0) \to 1$; $0 <_2$search(k;$\lambda i.P(i+1)$)$\to$ search(k;$\lambda i.P(i+1)$)+1 else 0 fi $\in \mathbb{Z}$

http://www.nuprl.org/FDLcontent/p0_802137_/p95_367899_{search_succ}.html