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Mark E. Huibregtse* (mhuibreg@skidmore.edu), Dept. of Mathematics and Computer Science, Skidmore College, Saratoga Springs, NY 12866. *Some Elementary Components of the Hilbert Scheme of Points*. Preliminary report.

We present some finite algebras of the form $K[\mathbf{x}]/I$ having “small tangent space” in the sense of Iarrobino and Emsalem [*Some Zero-Dimensional Generic Singularities: Finite Algebras Having Small Tangent Space*, Compos. Math. 36 (1978), 145–188], where the ideal I is inhomogeneous. For each such I , the corresponding point $[I]$ in the Hilbert scheme of points is a smooth point on an **elementary component** of the Hilbert scheme (that is, a component such that all points on it correspond to closed subschemes of \mathbb{A}_K^n that are concentrated at one point). (Received September 01, 2012)