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We analyze a low energy effective model of Dark Matter in which the thermal relic density is provided by a singlet Majorana fermion which interacts with the Higgs fields via higher dimensional operators. Direct detection signatures may be reduced if so-called blind spot solutions exist, which naturally appear in models with extended Higgs sectors. Explicit mass terms for the Majorana fermion can be forbidden by a Z 3 symmetry, which in addition leads to a reduction of the number of higher dimensional operators. Moreoever, a weak scale mass for the Majorana fermion is naturally obtained from the vacuum expectation value of a scalar singlet field and the proper relic density may be obtained by the s-channel interchange of Higgs and gauge bosons, with the longitudinal mode of the Z boson (the neutral Goldstone mode) playing a relevant role in the annihilation process. This model shares many properties with the Next-to-Minimal-Supersymmetric extension of the Standard Model with light singlinos and heavy scalar superpartners. The latter serves us as an explicit computational basis to study the properties of these kind of models, and allows to compare the predictions of the low energy with the ones of the ultraviolet complete one.

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