Scheme	Magic state	Initial code	Clifford check code	Check ancilla s
Ref. [?]	$\|H\rangle$	Steane	Steane	$\|+\rangle^{\otimes 7}$
Ref. [?]	$\|H\rangle$	$\mathbb{RP}^2$	$S-\mathbb{RP}^2$	$\|+\rangle^{\otimes 9}$
Ref. [?]	$\|\mathrm{CX}\rangle$	3	3	GHZ(9)
This work	$\|H\rangle$	3	3	GHZ(3)

Table 1: **Comparing 3 MSC schemes**. (Initial code) The code chosen for injection of the noisy logical magic state. (Clifford check code) The code chosen to perform logical Clifford measurements on. (Check ancilla state) The ancillary system used to perform the logical Clifford measurement, where $\mathrm{GHZ}(n) = \left(|0\rangle^{\otimes n} + |1\rangle^{\otimes n}\right)/\sqrt{2}$. All schemes escape into the rotated surface code $\mathsf{Rot}(d_{\mathrm{fin}})$. (Planar n.n) Scheme works with planar nearest-neighbor connectivity. (Bottleneck) The most expensive component of the scheme.