

# TB0405 Re-Reference R axis during a bar

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On F027 O'Grady, the R axis position was identified to be creeping in a positive direction on each move. Because the R axis is open-loop (ie no encoder feedback to the e100 controller), there is no way of detecting or correcting this. The control system was fully tested on a separate setup and it has been confirmed that there are no issues with the software or wiring design. The root cause is not obvious.

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## Solution

The R axis re-references at the end of each bar anyway, therefore if it re-referenced more often, it would solve the problem.

A new version (3.9992) of Multi.mnt has been tested, which works by counting the number of R axis moves and redatuming if the number exceeds a constant RE\_REF\_R. The constant is found at the top of the mint file.

Define RE\_REF\_R = 20

O'Grady's has been left with a value of 20, the default will be 99.

O'Grady's has been tested on 22/05/2018 and is working fine.