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David G Larman* (d.larman@math.ucl.ac.uk), Gower Street, London, WC1E 6BT, England. Blocking numbers for l_p balls in three dimensions. Preliminary report.

(Joint work with Selvinaz Szegin) The blocking number of a convex body C in Euclidean Space is the minimum number of non-overlapping translates of C which touch C and prevent, without overlapping, any other translate from touching C. A well known unsolved conjecture is that the blocking number of every convex body in 3 dimensions is at least 6. Here we show that, for l_p balls in 3 dimensions, $p < \infty$, the blocking number is at most 6. (Received September 08, 2008)