> cor(robotReading[1:24])

V1 V2 V3 V4 V5 V6 V7

V1 1.00000000 0.227981312 0.140681111 0.05799745 0.019947760 -0.11387882 -0.28418417

V2 0.22798131 1.000000000 0.323046299 0.16348815 0.149412534 0.04856482 -0.05502801

V3 0.14068111 0.323046299 1.000000000 0.39665480 0.329760366 0.16100080 -0.07293810

V4 0.05799745 0.163488154 0.396654795 1.00000000 0.626802998 0.31530914 -0.06796379

V5 0.01994776 0.149412534 0.329760366 0.62680300 1.000000000 0.48993227 0.07781705

V6 -0.11387882 0.048564823 0.161000797 0.31530914 0.489932275 1.00000000 0.38277716

V7 -0.28418417 -0.055028011 -0.072938100 -0.06796379 0.077817049 0.38277716 1.00000000

V8 -0.19397512 -0.008596045 -0.186465052 -0.12796682 -0.002549987 0.20048919 0.40689077

V9 -0.30524911 -0.052476423 -0.220045908 -0.16943370 -0.170375474 0.11469730 0.43201752

V10 -0.27935388 -0.092430001 -0.179121737 -0.11555174 -0.100226005 -0.01902830 0.25656926

V11 -0.20749095 -0.219791966 -0.157229928 -0.11677044 -0.123872352 -0.14790589 0.09836327

V12 -0.23522016 -0.147005819 -0.235031873 -0.16583499 -0.104604143 -0.16371979 0.03107575

V13 -0.15709924 -0.206211004 -0.182398976 -0.14573408 -0.091064837 -0.13764975 0.02485231

V14 -0.22097770 -0.118624975 -0.162223893 -0.30816311 -0.280736959 -0.15341847 0.08908166

V15 -0.13565793 -0.061509343 -0.133359367 -0.27150730 -0.323144677 -0.18663503 0.09300162

V16 0.06582240 -0.031576888 -0.019796146 0.02201124 -0.051745251 -0.14733601 -0.14281281

V17 0.13755839 -0.064507512 -0.069216680 -0.12082936 -0.161187398 -0.21327465 -0.20101802

V18 0.16318390 -0.032970308 -0.103050983 -0.18119294 -0.222219315 -0.25015739 -0.22098953

V19 0.18537680 0.028958757 -0.063634920 -0.18957453 -0.248405858 -0.25111912 -0.27231900

V20 0.18152498 0.072768882 -0.006546035 -0.09410426 -0.195668612 -0.22809189 -0.24009266

V21 0.28065010 0.053313741 -0.010128501 -0.07319713 -0.153190579 -0.21536266 -0.27323451

V22 0.34160775 -0.001614314 0.130243887 0.27002052 0.114635532 -0.10367568 -0.37233827

V23 0.38266010 0.057816920 0.112308807 0.16195165 0.115356329 -0.09797310 -0.23519087

V24 0.46843039 0.105036040 0.076077946 0.07997816 0.087500328 -0.08181026 -0.25963379

V8 V9 V10 V11 V12 V13 V14

V1 -0.193975119 -0.30524911 -0.279353877 -0.207490952 -0.235220155 -0.15709924 -0.220977696

V2 -0.008596045 -0.05247642 -0.092430001 -0.219791966 -0.147005819 -0.20621100 -0.118624975

V3 -0.186465052 -0.22004591 -0.179121737 -0.157229928 -0.235031873 -0.18239898 -0.162223893

V4 -0.127966818 -0.16943370 -0.115551739 -0.116770444 -0.165834985 -0.14573408 -0.308163105

V5 -0.002549987 -0.17037547 -0.100226005 -0.123872352 -0.104604143 -0.09106484 -0.280736959

V6 0.200489185 0.11469730 -0.019028304 -0.147905892 -0.163719793 -0.13764975 -0.153418470

V7 0.406890771 0.43201752 0.256569264 0.098363271 0.031075755 0.02485231 0.089081657

V8 1.000000000 0.53680663 0.551394647 0.292637556 0.003403592 -0.01100009 -0.021794954

V9 0.536806634 1.00000000 0.564115933 0.262172543 -0.012490513 0.01877109 0.032239066

V10 0.551394647 0.56411593 1.000000000 0.469736316 0.128584372 0.06539221 -0.001731548

V11 0.292637556 0.26217254 0.469736316 1.000000000 0.321842429 0.25648017 0.056979346

V12 0.003403592 -0.01249051 0.128584372 0.321842429 1.000000000 0.46976703 0.354017543

V13 -0.011000093 0.01877109 0.065392208 0.256480172 0.469767028 1.00000000 0.513060024

V14 -0.021794954 0.03223907 -0.001731548 0.056979346 0.354017543 0.51306002 1.000000000

V15 -0.064062858 0.12759617 0.039169774 -0.026911239 0.150226010 0.19773719 0.370363774

V16 -0.124273030 -0.11798387 -0.030758560 -0.004357688 -0.048638712 -0.04934975 -0.005493518

V17 -0.193578001 -0.23247711 -0.199329462 -0.062370985 0.019440326 0.01152199 0.066959199

V18 -0.209797772 -0.26431563 -0.239952207 -0.109127378 0.032983857 0.05385315 0.087975126

V19 -0.265393777 -0.26944960 -0.297212734 -0.174173037 0.003972246 0.04263458 0.107681476

V20 -0.246415473 -0.15605824 -0.224383653 -0.262037371 -0.128697699 -0.06489422 0.028992280

V21 -0.278242634 -0.18930147 -0.210884889 -0.302757368 -0.264359681 -0.19678344 -0.092523662

V22 -0.258908369 -0.27124490 -0.179306020 -0.084472653 -0.302604197 -0.18508920 -0.284081843

V23 -0.171623561 -0.27331217 -0.208651231 -0.115064863 -0.186996411 -0.13977915 -0.280006180

V24 -0.143236957 -0.33490215 -0.263426927 -0.168135961 -0.160546387 -0.11409124 -0.196876222

V15 V16 V17 V18 V19 V20 V21

V1 -0.13565793 0.065822398 0.13755839 0.16318390 0.185376802 0.181524982 0.28065010

V2 -0.06150934 -0.031576888 -0.06450751 -0.03297031 0.028958757 0.072768882 0.05331374

V3 -0.13335937 -0.019796146 -0.06921668 -0.10305098 -0.063634920 -0.006546035 -0.01012850

V4 -0.27150730 0.022011244 -0.12082936 -0.18119294 -0.189574530 -0.094104263 -0.07319713

V5 -0.32314468 -0.051745251 -0.16118740 -0.22221931 -0.248405858 -0.195668612 -0.15319058

V6 -0.18663503 -0.147336010 -0.21327465 -0.25015739 -0.251119116 -0.228091889 -0.21536266

V7 0.09300162 -0.142812814 -0.20101802 -0.22098953 -0.272318998 -0.240092663 -0.27323451

V8 -0.06406286 -0.124273030 -0.19357800 -0.20979777 -0.265393777 -0.246415473 -0.27824263

V9 0.12759617 -0.117983865 -0.23247711 -0.26431563 -0.269449603 -0.156058245 -0.18930147

V10 0.03916977 -0.030758560 -0.19932946 -0.23995221 -0.297212734 -0.224383653 -0.21088489

V11 -0.02691124 -0.004357688 -0.06237098 -0.10912738 -0.174173037 -0.262037371 -0.30275737

V12 0.15022601 -0.048638712 0.01944033 0.03298386 0.003972246 -0.128697699 -0.26435968

V13 0.19773719 -0.049349754 0.01152199 0.05385315 0.042634581 -0.064894223 -0.19678344

V14 0.37036377 -0.005493518 0.06695920 0.08797513 0.107681476 0.028992280 -0.09252366

V15 1.00000000 0.100354362 0.05440210 0.05170945 0.045517265 0.056800092 0.05490389

V16 0.10035436 1.000000000 0.37454006 0.23055436 0.026933011 0.062628254 0.15801609

V17 0.05440210 0.374540060 1.00000000 0.51491840 0.271167093 0.069658647 0.16136555

V18 0.05170945 0.230554364 0.51491840 1.00000000 0.388338292 0.157571268 0.17600770

V19 0.04551726 0.026933011 0.27116709 0.38833829 1.000000000 0.284290546 0.17587707

V20 0.05680009 0.062628254 0.06965865 0.15757127 0.284290546 1.000000000 0.27659729

V21 0.05490389 0.158016088 0.16136555 0.17600770 0.175877070 0.276597294 1.00000000

V22 -0.18228712 0.096513150 0.09626853 0.06493760 0.053997693 0.175441976 0.35823870

V23 -0.16456024 0.049848330 0.13041649 0.12259290 0.072240369 0.117639781 0.31869599

V24 -0.21091403 0.025650369 0.15068469 0.16409574 0.118344064 0.097039240 0.27329954

V22 V23 V24

V1 0.341607753 0.38266010 0.46843039

V2 -0.001614314 0.05781692 0.10503604

V3 0.130243887 0.11230881 0.07607795

V4 0.270020520 0.16195165 0.07997816

V5 0.114635532 0.11535633 0.08750033

V6 -0.103675677 -0.09797310 -0.08181026

V7 -0.372338272 -0.23519087 -0.25963379

V8 -0.258908369 -0.17162356 -0.14323696

V9 -0.271244901 -0.27331217 -0.33490215

V10 -0.179306020 -0.20865123 -0.26342693

V11 -0.084472653 -0.11506486 -0.16813596

V12 -0.302604197 -0.18699641 -0.16054639

V13 -0.185089202 -0.13977915 -0.11409124

V14 -0.284081843 -0.28000618 -0.19687622

V15 -0.182287118 -0.16456024 -0.21091403

V16 0.096513150 0.04984833 0.02565037

V17 0.096268527 0.13041649 0.15068469

V18 0.064937596 0.12259290 0.16409574

V19 0.053997693 0.07224037 0.11834406

V20 0.175441976 0.11763978 0.09703924

V21 0.358238702 0.31869599 0.27329954

V22 1.000000000 0.45441326 0.29577102

V23 0.454413263 1.00000000 0.43762008

V24 0.295771022 0.43762008 1.00000000