
generateDesignMatrix

```
function [X] = generateDesignMatrix(v1, v2, v3, v4, hrf, n_scans)
% Generates a design matrix from four stimuli activation vectors, a
% hrf and
% the number of scans preformed in total.

%Init matrix
D = zeros(n_scans, 5, 'single');

%Inserting data into non convolved design matrix.
D(v1,1) = 1;
D(v2,2) = 1;
D(v3,3) = 1;
D(v4,4) = 1;

%Convole with hrf.
X = conv2(D,hrf);

%Cutoff and add 1 for B0
X = X(1:360,:);
X(:,5) = 1;
end
```

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