function [ mutant ] = crossover( chrome1, chrome2 )

%MUTATE Takes two genetic strands and randomly mutates them.

%   Splits the strand and combines them to make a new strand.

len = length(chrome2);

%The first place to split the chromosome which must be at most 2 indices

%away from the last index of the chromosome then second split spot is

%further down from the first split spot.

splitSpot\_one = ceil(rand()\*(len-2))+1;

splitSpot\_two = ceil(rand()\*(len-splitSpot\_one)+splitSpot\_one);

mutant = [chrome1(1:splitSpot\_one),chrome2(splitSpot\_one+1:splitSpot\_two)...

    ,chrome1(splitSpot\_two+1:end)];

end