

Original string: sir sid easily teases sea sick sealsChanged string: sir sid Xasily tXasXs sXa sick sXals

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.global subs

subs:

```
stmfd sp!, {v1-v6, lr}
mov v1,a1 @copy pointer address will be overwritten
mov v2,a2 @copy char we look for
mov v3,a3 @copy char we replace with
bl strlen
add a1,a1,#1 @account for null byte
mov v4,a1 @move the stringlength to a1
bl malloc @allocate memory to make a new string
mov v5,#0
```

loop:

```
ldrb v6,[v1],#1
cmp v6,v2
streqb v3,[a1,v5]
strneb v6,[a1,v5]
add v5,v5,#1
subs v4,v4,#1
bne loop
ldmfd sp!, {v1-v6, pc}
```

.end

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#include <stdlib.h>

#include <stdio.h>

extern char \* subs( char \*string, char this\_c, char that\_c );

int main(int argc, char \*argv[] )

{

```
char this_c = 'e' ;
char that_c = 'X' ;
char orgstr[] = "sir sid easily teases sea sick seals" ;
char * result ;
```

```
result = subs( orgstr, this_c, that_c ) ;
printf( "Original string: %s\n", orgstr ) ;
printf( "Changed string: %s\n", result ) ;
```

```
exit( 0 ) ;
```

}