

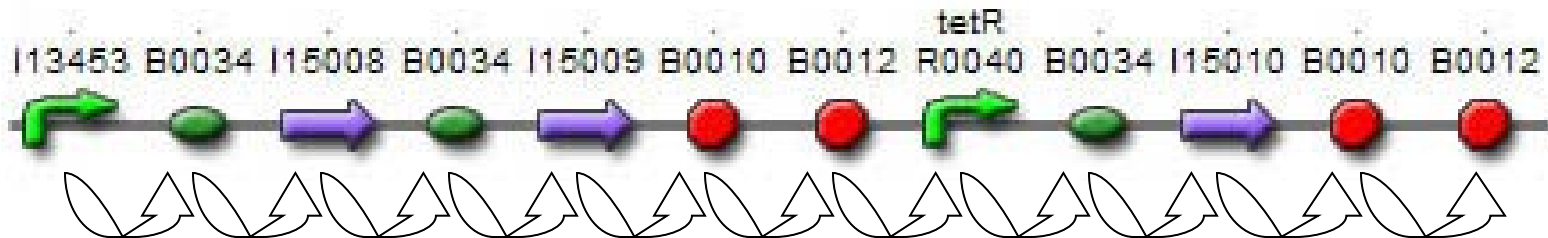
Todo Sobre 'Assembly'

Taller de iGEM 2006

Mexico D.F., Mexico

Julio 2006

A construire...



11 assemblies ??

Tu mejor amigo



jump to part

BBa_

navigation

- Main Page
- Browse Part Types
- iGEM Wiki
- Community portal
- Recent changes
- Recent part changes

resources

- User Accounts
- Add a Part
- 3 Part Searches
- DNA Repositories
- Sequence Analysis
- Assembly Tool
- Help

search

Go Search

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version

article

Search the Registry

Text Search

Search for one phrase in the fields: short description, description, biology, notes, and author. When searching for a part name, use the short version (e.g. B0010).

Search phrase:

Search

Subpart Search *Example*

Search for parts that match a portion of this part or this sequence of parts.

Part list:

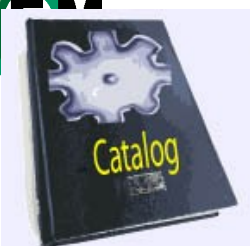
Search

Superpart Search

Search for parts that contain these parts.

Part list:

Search



jump to part

BBa_

- navigation
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Text Search

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Search phrase:

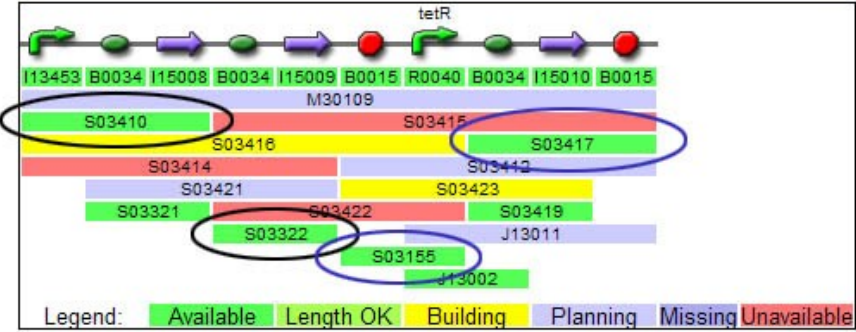
Search

Subpart Search Example

Search for parts that match a portion of this part or this sequence of parts.

Part list:

Search



Superpart Search

Search for parts that contain these parts.

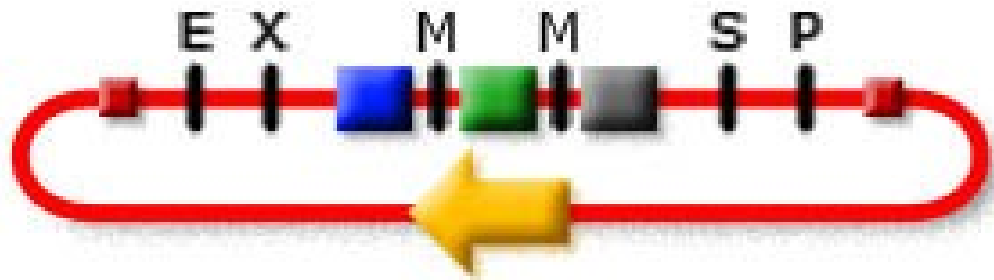
Part list:

Search

Ahora que ... ??

Partes BioBrick

- Todas las partes estan construidas y guardadas en plasmids



Assembly

BioBrick Restriction Sites

<u>EcoRI</u> ...G AATTC... ...CTTAA G...
<u>XbaI</u> ...T CTAGA... ...AGATC T...
<u>SpeI</u> ...A CTAGT... ...TGATC A...
<u>PstI</u> ...CTGCA G... ...G ACGTC...
<u>SpeI - XbaI</u> ...ACTAGA... ...TGATCT...

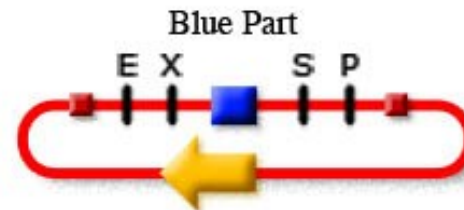
- Solamente se necesita 4 restriction enzimas
- XbaI and SpeI tienen puntos compatibles
- Algunos problemas



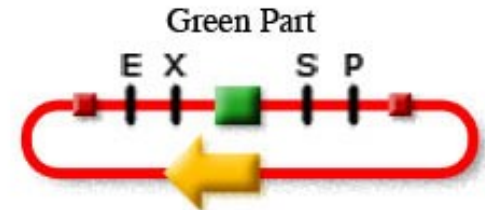
Standard Assembly

BioBrick Restriction Sites

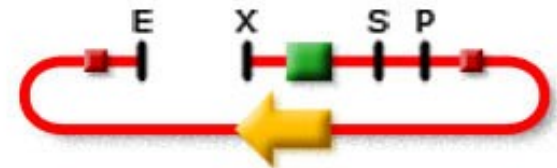
EcoRI
...G AATTC...
...CTTAA G...
XbaI
...T CTAGA...
...AGATC T...
SpeI
...A CTAGT...
...TGATC A...
PstI
...CTGCA G...
...G ACGTC...
SpeI - XbaI
...ACTAGA...
...TGATCT...



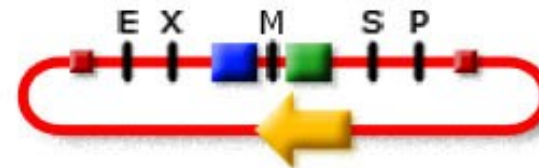
Cut with
EcoRI and SpeI



Cut with
EcoRI and XbaI



Mix and Ligate
(Blue-Green Part)



Cortar... purificar... LIGATE... BioBrick! Cortar... purificar... LIGATE...

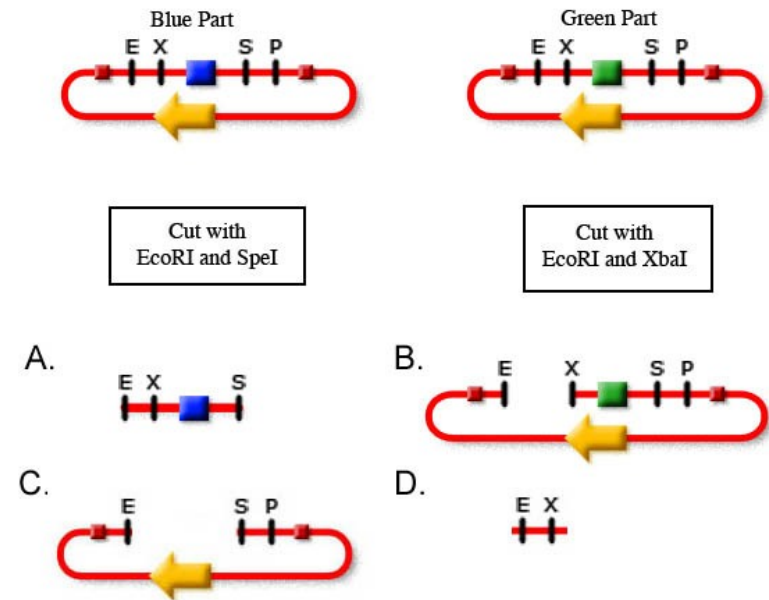
Rolling Assembly



El mismo numero de pasos incluso si ocurre un error

Problemas con Standard Assembly

- Otras posibilidades



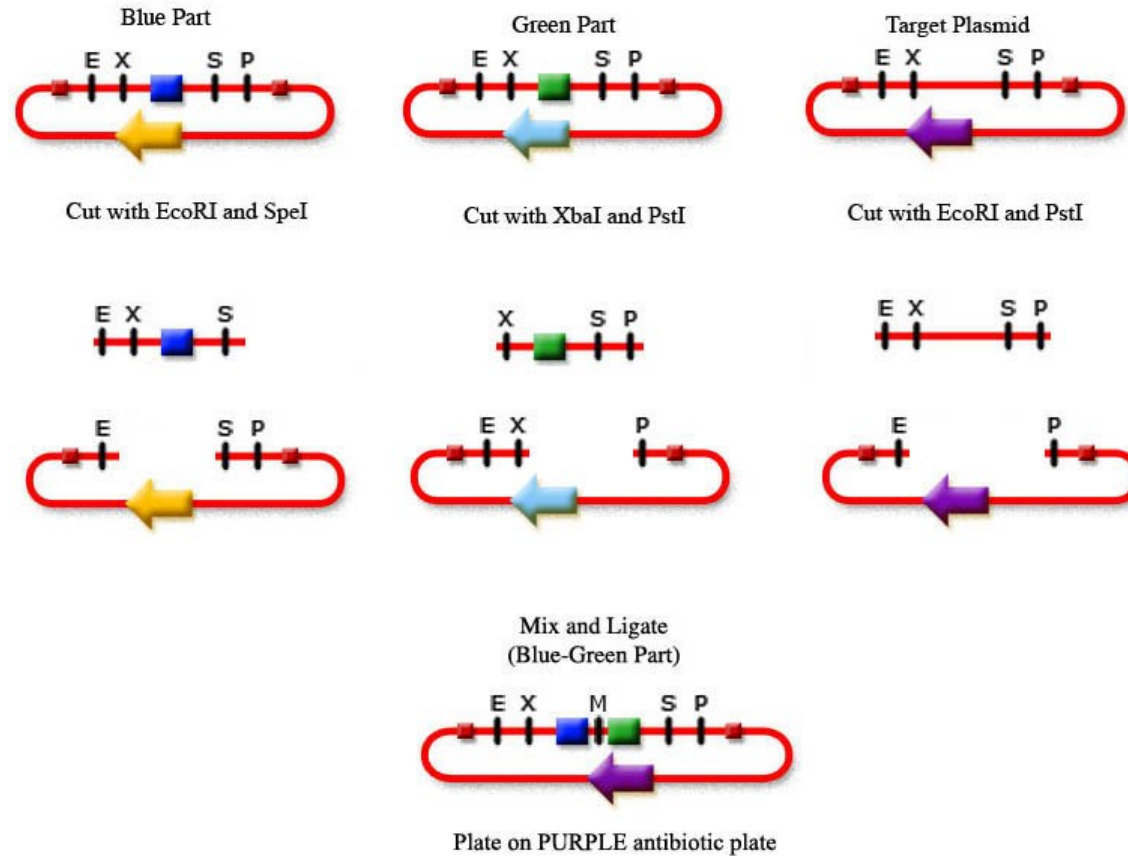
- Siempre esta usando el mismo gen de resistencia antibiotica
- DNA genomica

Para evitar constructs competidores...

- Gel purificacion
- Dephosphorylation

(Openwetware.org)

Three-Antibiotic Assembly



Ventajas and Desventajas

- No gel purificacion
- Triple Ligations
- Recuerde... LIGATION MIX = toxico

Assembly Robotica

Exito!



Recibir, dar

- Nosotros mandamos DNA
 - Averiguar partes



- Ustedes necesitan mandarnos sus partes!

Recursos

- Parts.mit.edu
- Parts.mit.edu/igem
- Openwetware.org
- meaganl@mit.edu
- Gmail Chat: meagan.lizarazo