

## Ligation iGEM Protocol

After following our restriction digest protocol (which uses 250ng of DNA) you may follow these steps for ligation.

### Ligation

1. Add 2ul of digested plasmid backbone (25 ng)
2. Add equimolar amount of EcoRI-HF SpeI digested fragment (< 3 ul)
3. Add equimolar amount of XbaI PstI digested fragment (< 3 ul)
4. Add 1 ul T4 DNA ligase buffer. Note: Do not use quick ligase
5. Add 0.5 ul T4 DNA ligase
6. Add water to 10 ul
7. Ligate 16C/30 min, heat kill 80C/20 min
8. Transform with 1-2 ul of product

Note: For linearized plasmid backbones provided by iGEM HQ, a plasmid backbone with an insert of BBa\_J04450 was used as template. As a result any red colonies that appear during your ligation may be due to the template as a background. Digesting with Dpn1 before use should reduce this occurrence.