Exploring the iGEM Distribution

Overview

Getting Started

Introduction, information and structure

Data Exploration & Analysis

Diving deep into the Registry, analyzing how the distribution is used by teams

Suggestions

Files and software demo

Discussion

Registry of Standard Biological Parts

DNA Repository Plates and Boxes

Physical DNA is held in tubes in freezer boxes or multi-well plates. This program manages the contents of boxes and plates.

Label: 2021 Kit Plate 1 ID: 6411
Description: Spring 2021 DNA Distribution Kit Plate 1 384-Well Plate
Location: 2021-07-02 10:59:48
Substance: DNA
Plate Status: OK
Aliquot: Checked if this plate contains unprocessed samples from its source plate.

Get antibiotic files for this plate
Get an Excel file for this plate
Get a detailed Excel file for this plate

Gel Images and Results
Wells 1A thru 6H
Wells 7A thru 12H

Sequencing and Results
Go to sequencing

Plate Images and Results
Add a plate image

Contents:

Well	Part	Plasmid	Resist.	Cell	Comments Quality control information: Sequencing, Antibiotics, Restriction Digests
1A	BBa_K314110	pSB1C3		E. coli strain NEB 10-beta	
1B	BBa_K731722	pSB1C3		E. coli strain NEB 10-beta	
1C	BBa_K398326	pSB1C3		E. coli strain NEB 10-beta	#1 - 520 ng
1D	BBa_K731722	pSB1C3		E. coli strain NEB 10-beta	I was not able to remove this line from the list. It is the same sample as #21
1E	BBa_K398331	pSB1C3		E. coli strain NEB 10-beta	#2 - 990 ng
1F	BBa_K808025	pSB1C3		E. coli strain NEB 10-beta	may be toxic for gramm negativ bacteria due to lipase activity if its expressed into perplasma or surface expressed
1G	BBa_K314100	pSB1C3		E. coli strain NEB 10-beta	
1H	BBa_K808001	pSB1C3		E. coli strain NEB 10-beta	
1I	BBa_K314101	pSB1C3		E. coli strain NEB 10-beta	
1J	BBa_K808003	pSB1C3		E. coli strain NEB 10-beta	
1K	BBa_K314201	pSB1C3		E. coli strain NEB 10-beta	
1L	BBa_K808010	pSB1C3		E. coli strain NEB 10-beta	
1M	BBa_K314202	pSB1C3		E. coli strain NEB 10-beta	
1N	BBa_K808011	pSB1C3		E. coli strain NEB 10-beta	
1O	BBa_K346002	pSB1C3		E. coli strain NEB 10-beta	PmerT promoter
1P	BBa_K808013	pSB1C3		E. coli strain NEB 10-beta	
2A	BBa_K548000	pSB1C3		E. coli strain NEB 10-beta	
2B	BBa_K325210	pSB1C3		E. coli strain NEB 10-beta	

Parsing the data

Files are not Excel but CSV files

Some software applications like Excel and Pandas have problems parsing the file even though the file seems to use RFC4180

Deleting the space between commas and double quotes can easily fix this problem

Do the csv files match the data on the website?

All ccdb parts have been withdrawn from the Registry. Samples of parts containing the ccdB gene cannot be requested. - iGEM HQ

They do in fact differ slightly. The csv file contains more entries than the website

The parts in question are:

BBa_K581008
BBa_K145151
BBa_K805013
BBa_K658001

All of these include the ccdB gene which was removed from the registry due to patent issues

CSV overview

Duplicate Columns:

Plasmid

Empty Columns:

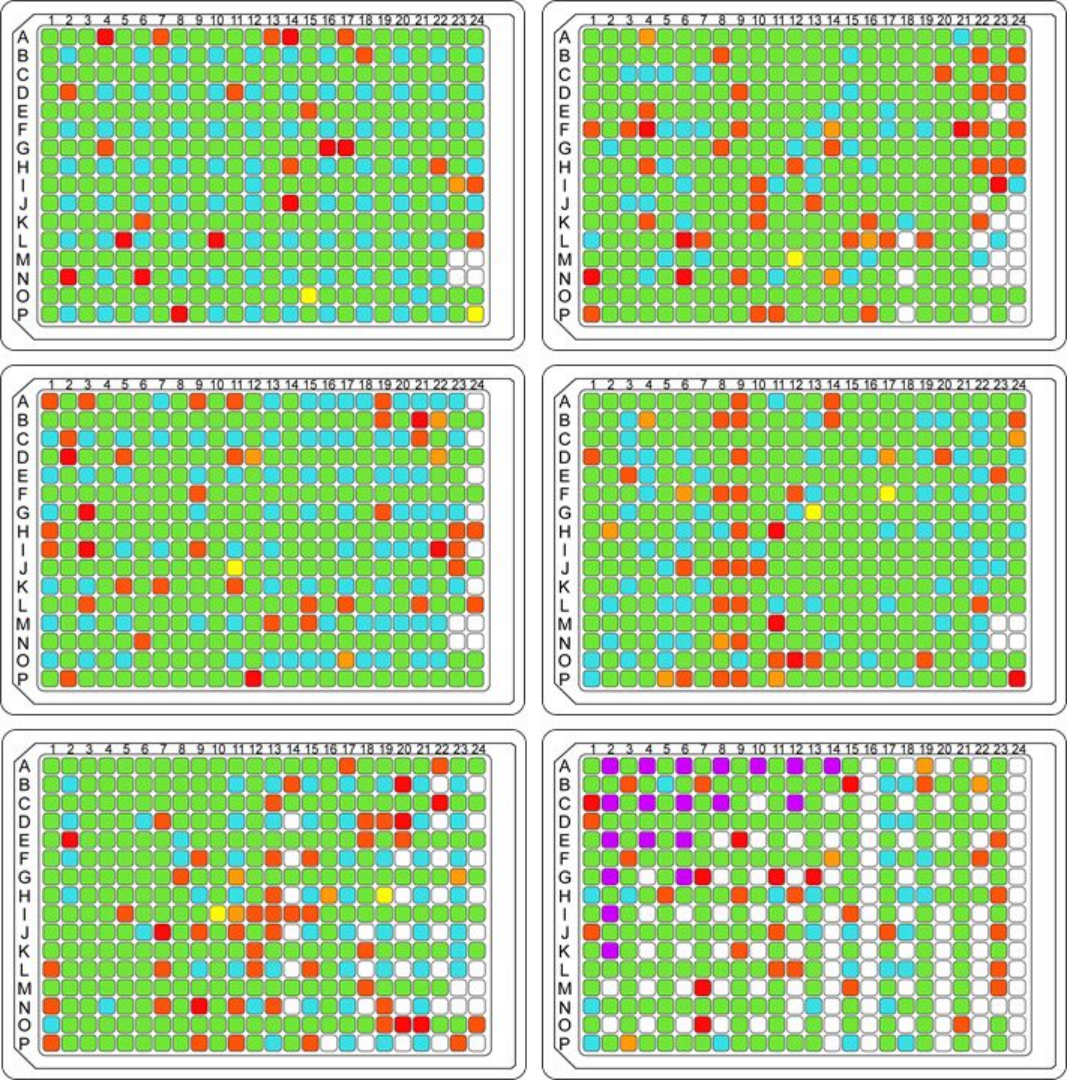
Resistance, Gel Overall, Quantity, Seq Comment

Just one unique value:

Sequencing, Well Status

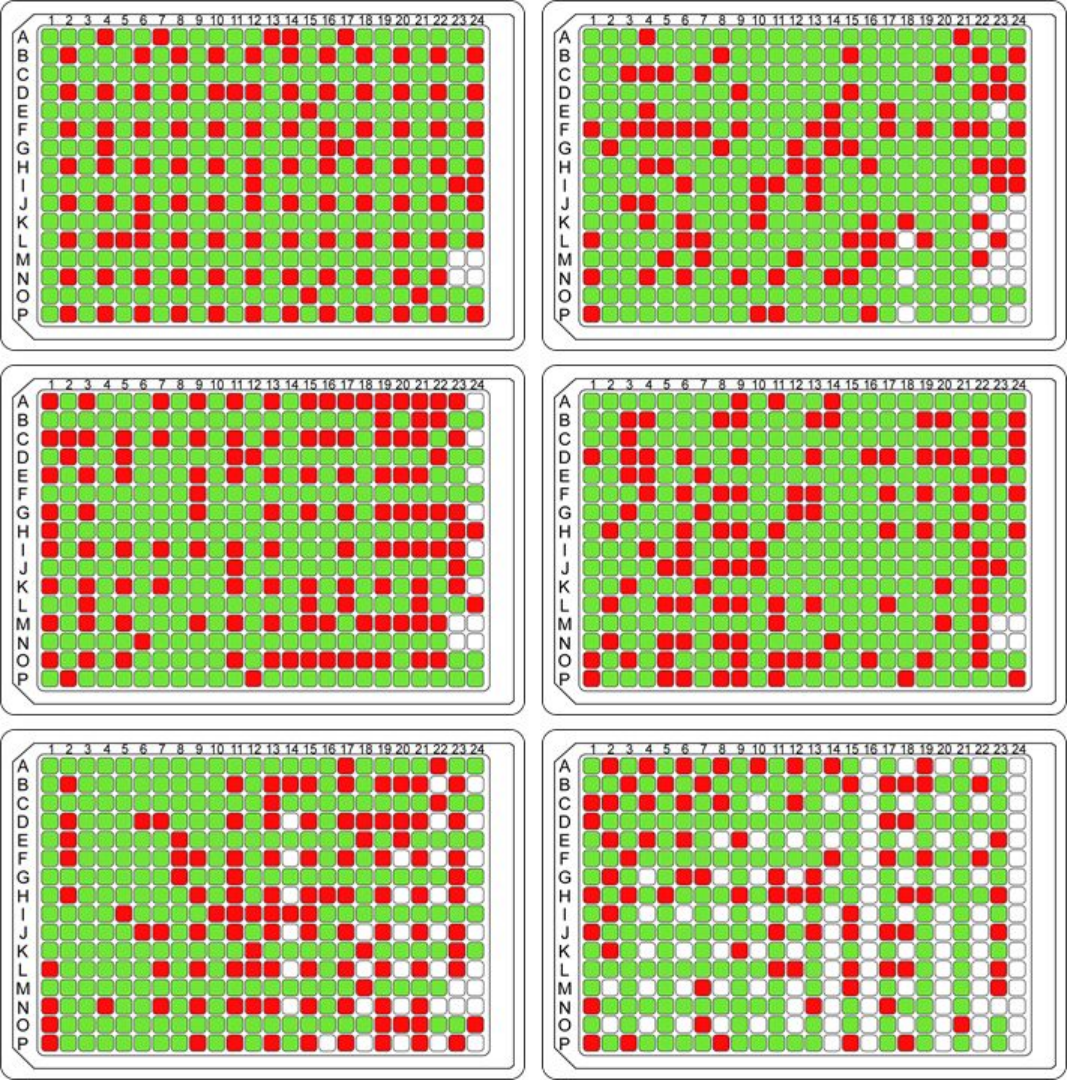
Columns

Plate
Well
Part
Plasmid
Well Status
Comments
Type
Subparts
Source
Gel Overall
Quantity
Plasmid
Sequencing
Seq Comment
Short Description



Sequencing

- **Confirmed**
- **Partially Confirmed** - software is only able to partially confirm sequence, most likely due to one read being poor
- **Long Part** – length of sequence reads are insufficient to cover the middle of the part
- **Inconsistent** - part does not match its target sequence, may have a single bp mutation or not match at all
- **Bad Sequence** – usually caused by low DNA concentration or incorrect primers
- **Single Error**
- **No Sequencing Information**

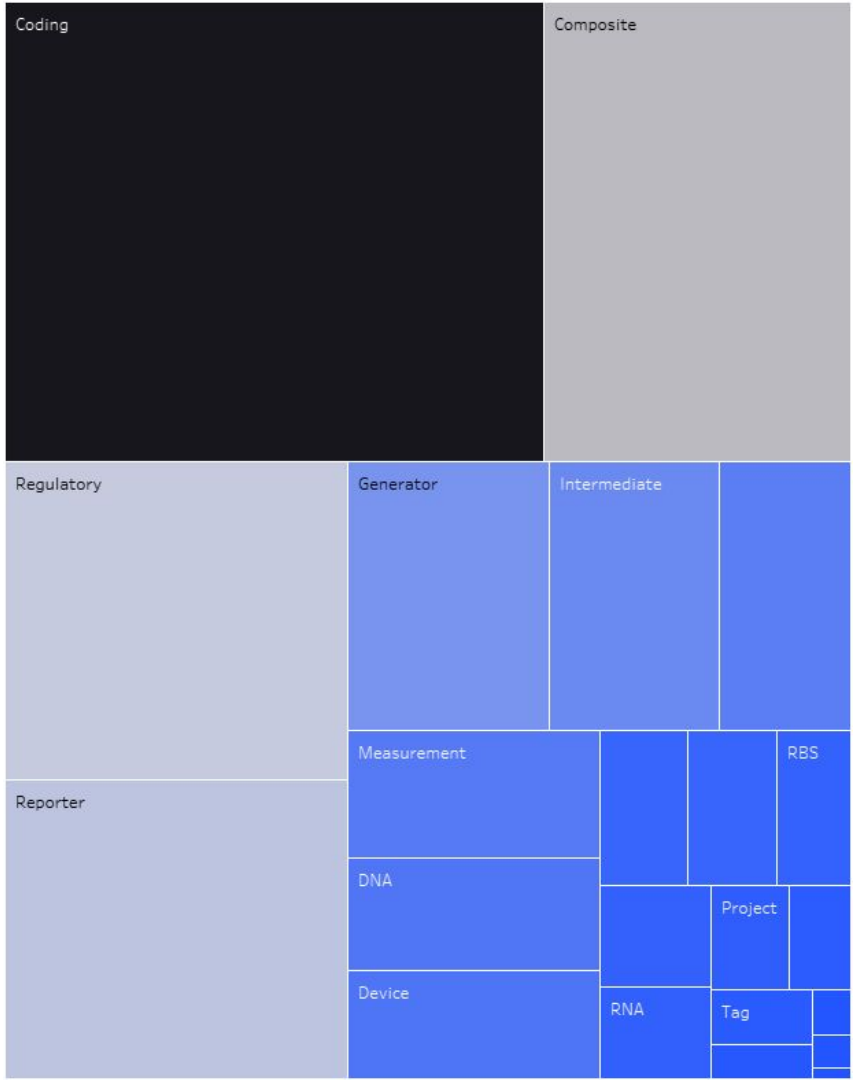


Sequencing II

Differentiate between *confirmed* and all others categories

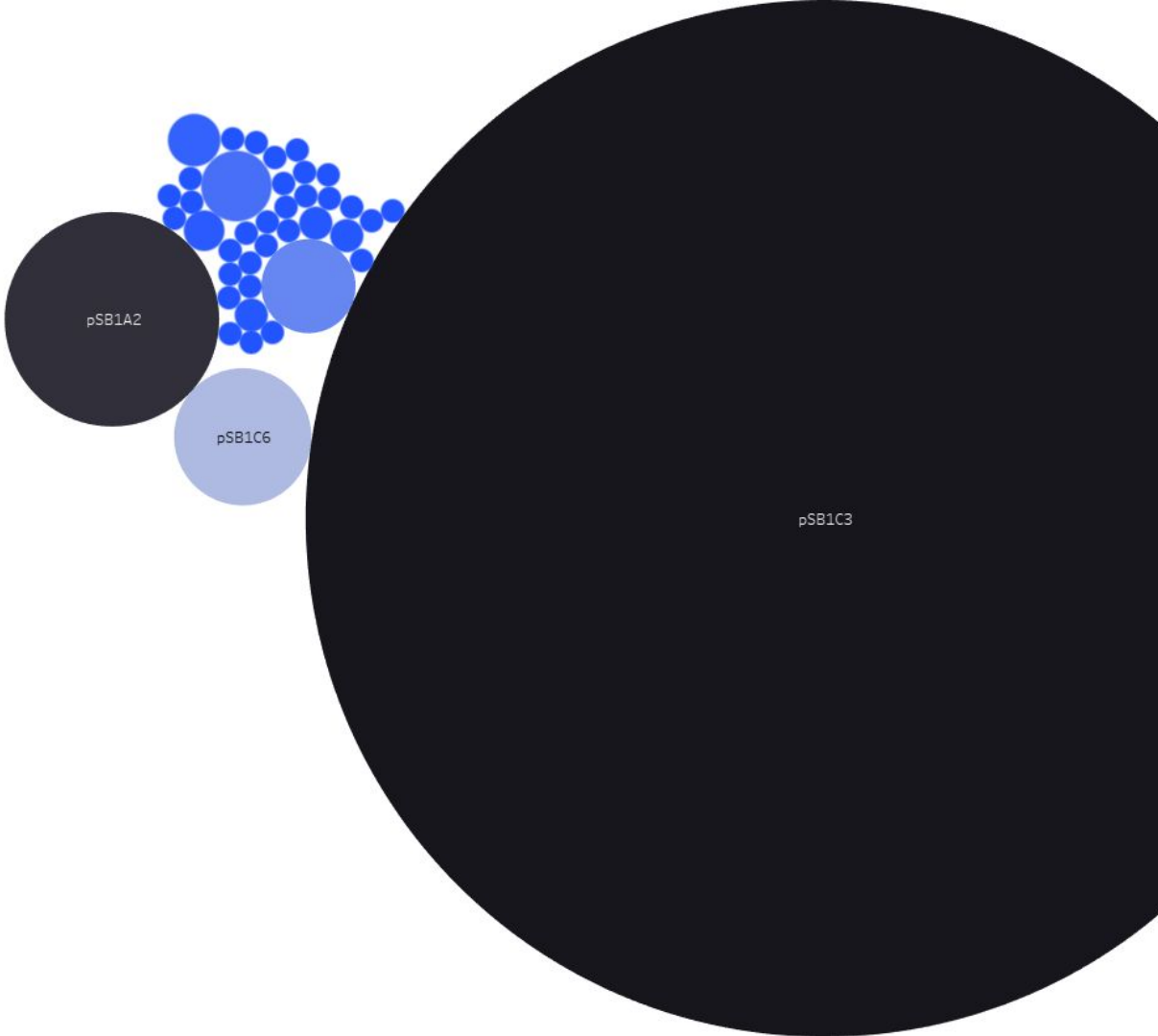
Type of parts

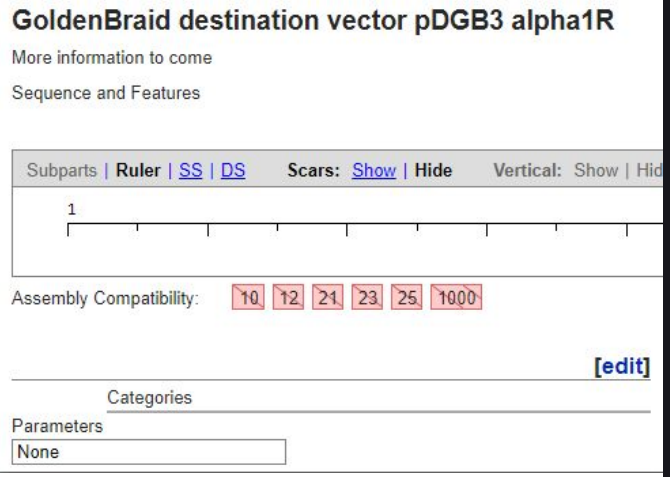
Coding	577
Composite	329
Regulatory	254
Reporter	239
Generator	126
Intermediate	106
Translational_Unit	82
Measurement	76
DNA	66
Device	63
Terminator	32
Signalling	32
RBS	27
Protein_Domain	26
RNA	24
Project	19
Other	15
Tag	13
Inverter	8
Conjugation	4
T7	3
Temporary	1



Plasmid

pSB1C3	1936
pSB1A2	83
pSB1C6	34
BBa_J61002	16
pSB1C00	9
pSB3K3	5
pSB1A3	3
pSB1AK3	2
BBa_J63009	2
pSB1AK8	2
BBa_P10501	1
pSB2K3	1
pSB1K01	1
BBa_P10506	1
pSB4K5	1
pSB1K3	1
pSB3C04	1
pSB1K04	1
pSB6A1	1
pSB3C02	1
pSB1AT3	1
pSB1K03	1
pSB3C01	1
BBa_J63010	1
BBa_P10503	1
BBa_P10504	1
BBa_P10507	1
pSB1K02	1
pSB1T3	1
pSB1AC3	1
BBa_P10502	1
pSB4C5	1
pSB3C5	1
pSB1A10	1
pSB3T5	1
BBa_P10505	1
pSB4A5	1
BBa_J23006	1
BBa_P10508	1
pSB3C03	1





Note: The sequence below is incorrect because the backbone that the SP device was inserted into was psb1A2 rather than psb1A3, so there is a terminator (not annotated) in the sequence below at position 1044-1121 that isn't actually present in the DNA of psb1A10. Updating this will take some time because I need to change all the feature locations by hand - but the Vector NTI file is correct.

Some of the plasmids that are used lack basic data

Some of the plasmids used in the distribution plate lack either:

- General information
- Information about the resistance
- Sequence annotations

Or everything of the above.

Additionally, some of the information may also be incorrect

Repository: Eppendorf Files for Broth Plates

Show all plates

Label: 2021 Kit Plate 1 ID: 6411
Description: Spring 2021 DNA Distribution Kit Plate 1 384-Well Plate
Location: 2021-07-02 10:59:48
Substance: DNA

Well	Part	Plasmid	Cell	
Unexpected Plasmid: pSB1C3 in this well:				
1A	BBa_K314110	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1B	BBa_K731722	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1C	BBa_K398326	pSB1C3	E. coli strain NEB 10-beta	#1 - 520 ng
Unexpected Plasmid: pSB1C3 in this well:				
1D	BBa_K731722	pSB1C3	E. coli strain NEB 10-beta	I was not able to remove this line from the list. It is the same sample as #21
Unexpected Plasmid: pSB1C3 in this well:				
1E	BBa_K398331	pSB1C3	E. coli strain NEB 10-beta	#2 - 990 ng
Unexpected Plasmid: pSB1C3 in this well:				
1F	BBa_K808025	pSB1C3	E. coli strain NEB 10-beta	may be toxic for gramm negativ bacteria due to lipase activity if its expressed into perplasma or surface expressed
Unexpected Plasmid: pSB1C3 in this well:				
1G	BBa_K314100	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1H	BBa_K808001	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1I	BBa_K314101	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1J	BBa_K808003	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
1K	BBa_K314201	pSB1C3	E. coli strain NEB 10-beta	
Unexpected Plasmid: pSB1C3 in this well:				
			E. coli strain NEB	

Schrödinger Parts

Some of the comments suggest that the part is in a different plasmid than officially stated.

Comments tend to add uncertainty rather than provide helpful insights.

10H	BBa_E0020	pSB1C00	pSB1C5 is a Type IIS Plasmid for Level 0 parts
10J	BBa_E0030	pSB1C00	pSB1C5 is a Type IIS Plasmid for Level 0 parts
10L	BBa_J97004	pSB1C00	pSB1C5 is a Type IIS Plasmid for Level 0 parts
10N	BBa_J97005	pSB1C00	pSB1C5 is a Type IIS Plasmid for Level 0 parts
10P	BBa_J97006	pSB1C00	pSB1C5 is a Type IIS Plasmid for Level 0 parts

15D	BBa_I14044	pSB1C3	E. coli strain NEB 10-beta Plasmid unknown, AmpR
15E	BBa_K863020	pSB1C3	E. coli strain NEB 10-beta
15F	BBa_I13013	pSB1C3	E. coli strain NEB 10-beta Plasmid unknown, AmpR

13P	BBa_K1093002	pSB1C3	Sorry for the Plasmid Backbone being pSB1A2 because of having no time to transfer.

404

File not found

What about files?

A *in silico* version of the distribution (i.e. GenBank files) would be helpful for both exploring as well as cloning parts of interest

Sadly, iGEM does not offer the possibility to download such files

Furthermore, the linked part tool with which one could download a part as a genbank file is no longer accessible

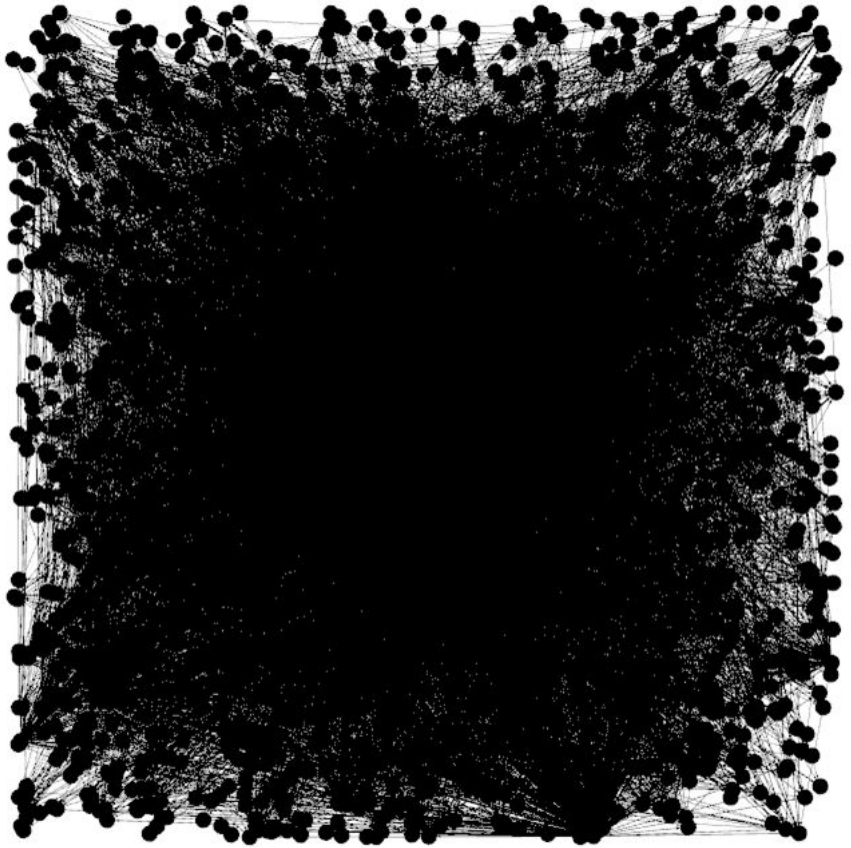
Plasmid Mapper

Although the registry links to a plasmid mapper, it is not a substitute for raw data

It doesn't feature the actual plasmid maps, it only creates a custom in silico cloning of the part

Contains less than half the plasmids used in the distribution

It’s currently broken for all major browsers



Relationship between parts in the distribution

Embedded all of the parts into a directed graph

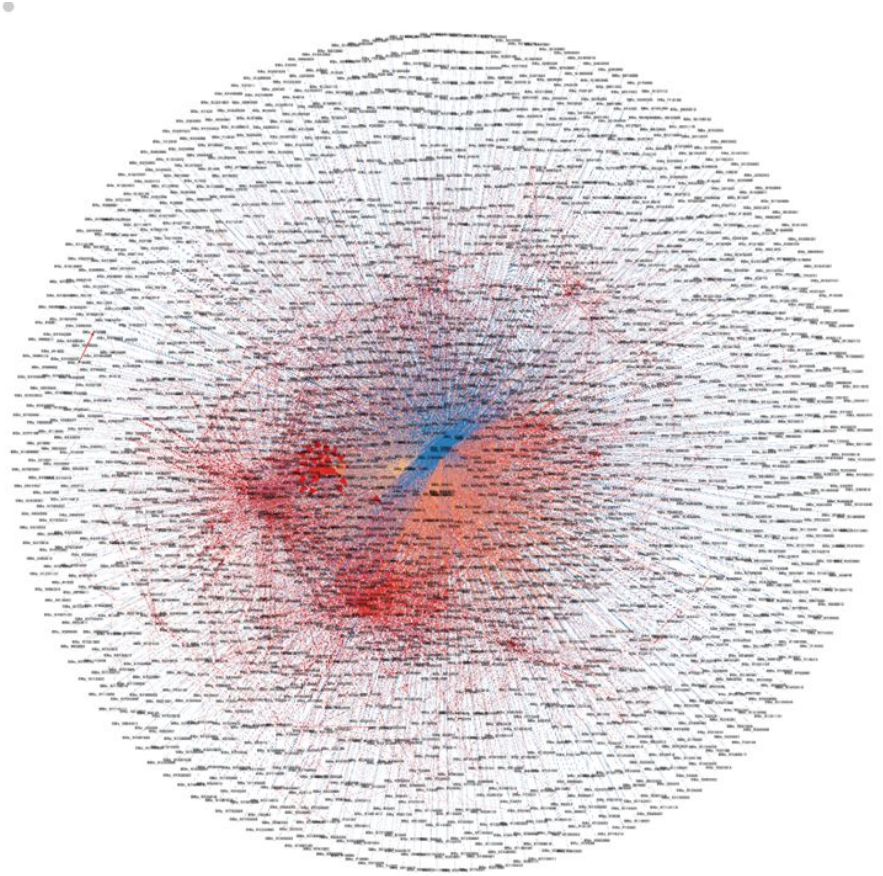
The resulting graph consists of 1,985 edges and 10,236 vertices

Graph

To better visualize the graph we utilize the force-directed graph algorithm from Fruchterman & Reingold

The resulting graph is surprisingly connected

One part in particular stands out, it seems to be included in every other part



Mysterious Part

A rather specialized part without defined uses

Only consist of 1bp… A

This false sequence occurrence both on the registry site as well as the registry database dump

Part:BBa_K1497024

Designed by: Sascha Hein, Rene Sahm Group: iGEM14_TU_Darmstadt (2014-10-07)

GBD-Domain

The GBD domain and its ligand (BBa_K771106) are suitable tools for protein colocalizaion. Initially, the domain was a part of the N-WASP protein (GTPase binding domain) in *Rattus rattus*. The GBD domain is used as a binding unit of the so-called protein scaffold published by Dueber et al. in 2009. The scaffold (BBa_K1497033) is composed of different binding units, which enable the assembly of multiple target proteins. The Domain was initially edited by Team BioX-Shanghai 2012 (BBa_K771105). The iGEM Team TU Darmstadt 2014 modified this BioBrick by adding a BglII and BamHI restriction site in front of and behind the previously constructed domain sequence and codon optimized it for expression in *E. coli*.

Now, different binding units of the scaffold protein can be fused together without the introduction of restriction sites. This allows the easy construction of BioBricks of different permutations of the scaffold protein domains.

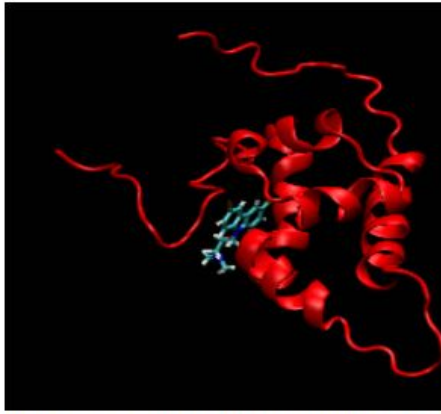


Figure 1 Crystal structure of the GBD domain from the protein (red) of Rattus rattus binding the small molecule (1-(3,6-Dibromo-carbazol-9-yl)-3-dimethylamino-propan- GBD domain is locked by Wiskostatin in its autoinhibited conformation (Peterson et al. 2004). PDB entry 1T84.

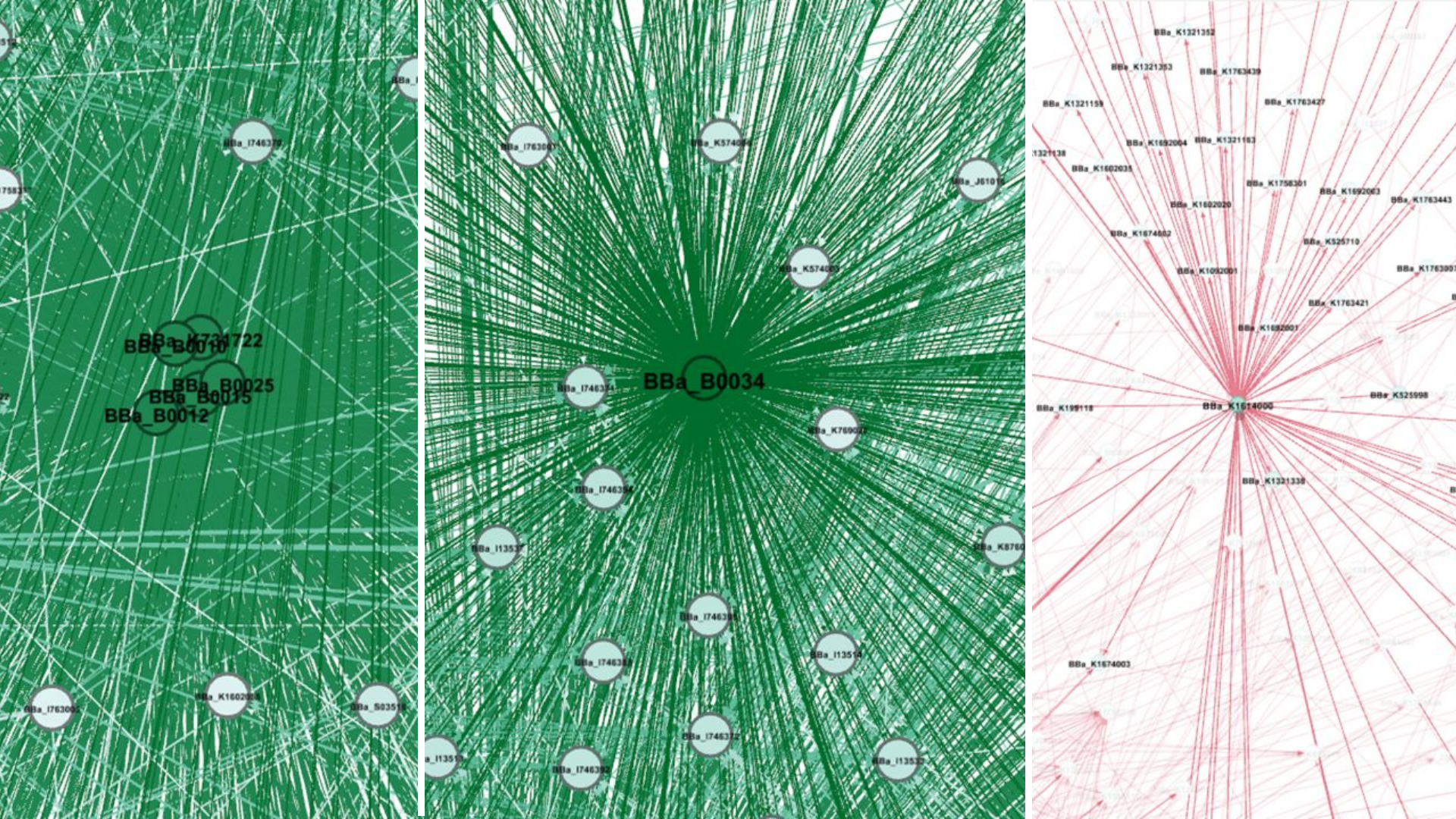
Subparts | Ruler | SS | DS **Scars:** Show | Hide Vertical: Show | Hide **Length: 1 bp**

1 1 11 21 31 41 51 61 71 81
a

Assembly Compatibility: 10 12 21 23 25 1000

Duplicate Wells

Part	Count	Name	Uses
BBa_J04450	40	RFP Coding Device	69
BBa_E0240	5	GFP Generator	293
BBa_R0040	4	TetR Repressible Promoter	1081
BBa_P10599	4	GoldenBraid destination vector alpha insert	0
BBa_P10598	4	GoldenBraid destination vector omega insert	0
BBa_J04455	4	RFP Selection Device for Even Level Loop Type IIS Parts	0
BBa_J04454	4	RFP Selection Device for Odd Level Loop Type IIS Parts	0
BBa_E0020	3	Cyan Fluorescent Protein	95
BBa_I20270	3	Promoter MeasKit	2
BBa_J364000	3	Test Device 1 for the iGEM InterLab Study	8


BBa_B0034
BBa_B0010
BBa_B0025
BBa_B0015
BBa_B0012
BBa_K1321352
BBa_K1321353
BBa_K1763439
BBa_K1321159
BBa_K1763427
BBa_K1692004
BBa_K1321163
BBa_K1602035
BBa_K1758301
BBa_K1692063
BBa_K1763443
BBa_K1602020
BBa_K1674002
BBa_K525710
BBa_K1092001
BBa_K1763421
BBa_K1092003
BBa_K525598
BBa_K199118
BBa_K1614000
BBa_K1321338
BBa_K1674003

Parts w/ same sequence but different name

amilCP blue/purple chromoprotein (incl RBS)
['BBa_K592025', 'BBa_K1033930']
Screening plasmid intermediate
['BBa_K1357010', 'BBa_I13507']
Promoter (luxR & HSL regulated -- lux pL)
['BBa_R0063', 'BBa_K783024']
green fluorescent protein derived from jellyfish
['BBa_K895006', 'BBa_E0040']
CFP
['BBa_E0020', 'BBa_K1418040']
RBS30
['BBa_B0030', 'BBa_K1789002']
RFP Selection Device for Level 0 Type IIS Parts
['BBa_J04450', 'BBa_J04452', 'BBa_J04455', 'BBa_J04454']
dCBD with N-terminal linker in RFC 25
['BBa_K1321340', 'BBa_K1321347']

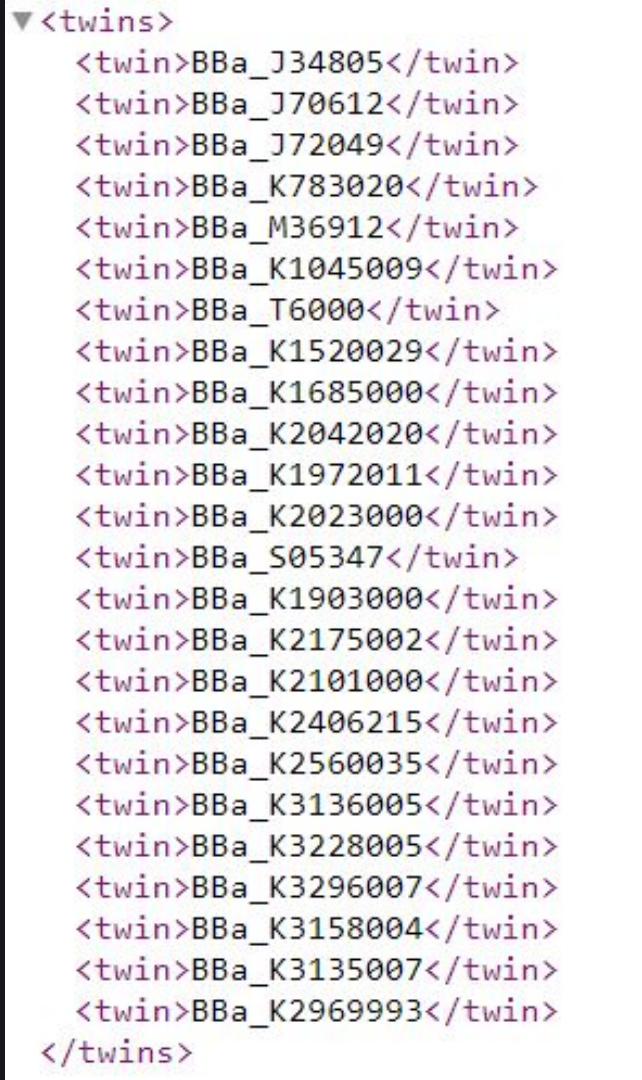
MoClo format of BBa_J23112 with AB fusion
['BBa_K1114003', 'BBa_K1114014']
pTetR-lasR-Term-Term
['BBa_K876015', 'BBa_K876057']
pSB-AraC-pBAD
['BBa_I0500', 'BBa_K1321333']
constitutive promoter family member
['BBa_K823007', 'BBa_J23103', 'BBa_J23112']
['BBa_K823010', 'BBa_J23113']
['BBa_K823013', 'BBa_J23117']
['BBa_K823006', 'BBa_J23102']
['BBa_K823004', 'BBa_J23100']
['BBa_K823014', 'BBa_J23118']
['BBa_K823005', 'BBa_J23101']
['BBa_K783028', 'BBa_J23110']
['BBa_K823008', 'BBa_J23106']
['BBa_K783032', 'BBa_J23115']
['BBa_K823011', 'BBa_K783031', 'BBa_J23114']

Twin Parts

"Two or more parts are twins if they have the same DNA sequence"

Although twin parts should generally be avoided, there are parts that have over 50 twins

This makes it more difficult to collect all of the necessary data

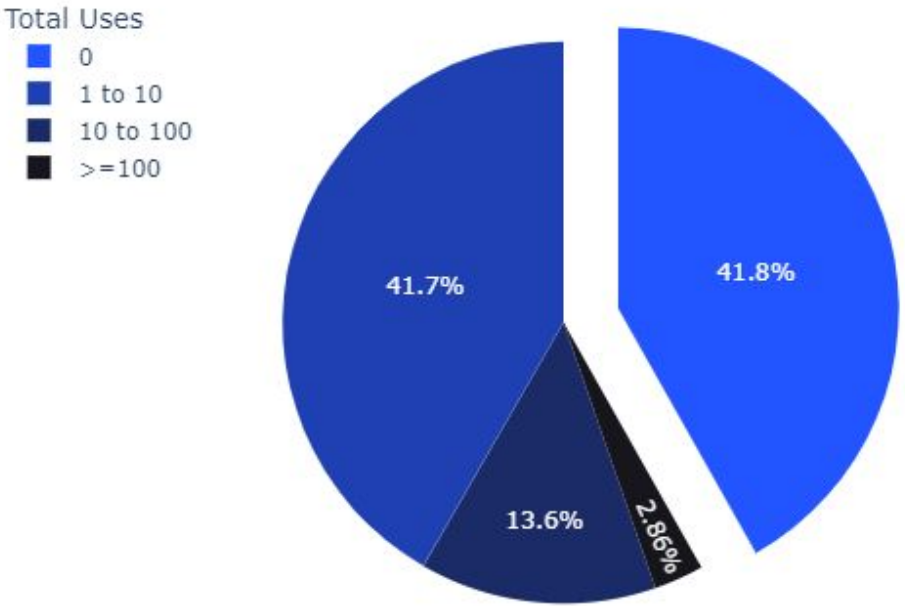


T7 Promoter
T7 promoter (strong promoter from T7 bacteriophage)
UNS 3 Sequence, from Torella et al., 2013
hPCD
flyPCD
fshPCD
UNS 2 Sequence, from Torella et al., 2013
yeast GAL1 promoter
Medium strength T7.2 RBS
T7 consensus -10 and rest
QPI (B0034.C0051.B0015.R0051)
QPI (B0034.C0040.B0015.R0040)
TetR repressed POPS/RIPS generator
WM_Pad1
WM_Pad2
Strong T7.2 RBS
ADH1 terminator from S. cerevisiae
Linker b (BamH I)
QPI (B0034.C0012.B0015.R0011)
SH3 domain + Linker
PDZ domain + Linker
Linker h
ECK120029600 - Escherichia coli K-12 terminator
His tag
attB1 recombination site
sfGFP
VP64
Terminator (artificial, small, %T~=85%)
MoClo RBS B0034
[rnpB-T1] Terminator
N-terminal start overhang (T)(A)-(G)ATG=RBS+Start RFC[105] A
GST
Linker e（cutting site of Prescission Protease）
hixC binding site for Salmonella typhimurium Hin recombinase
T7 R0.3 RNAseIII site
Transcription Terminator (Strong)
scaffold of sgRNA in CRISPR/Cas system
Linker a（Nde I and Nhe I）
Sumo tag
Terminator (His)
Stop codon free GFP in RFC[23] standard
hU6 Promoter

Most used parts that are not in the distribution

Analyzed the usage of parts in both the distribution and the entire registry

While some of the most commonly used parts are missing, others are included in the registry under a different name which can further complicate their use

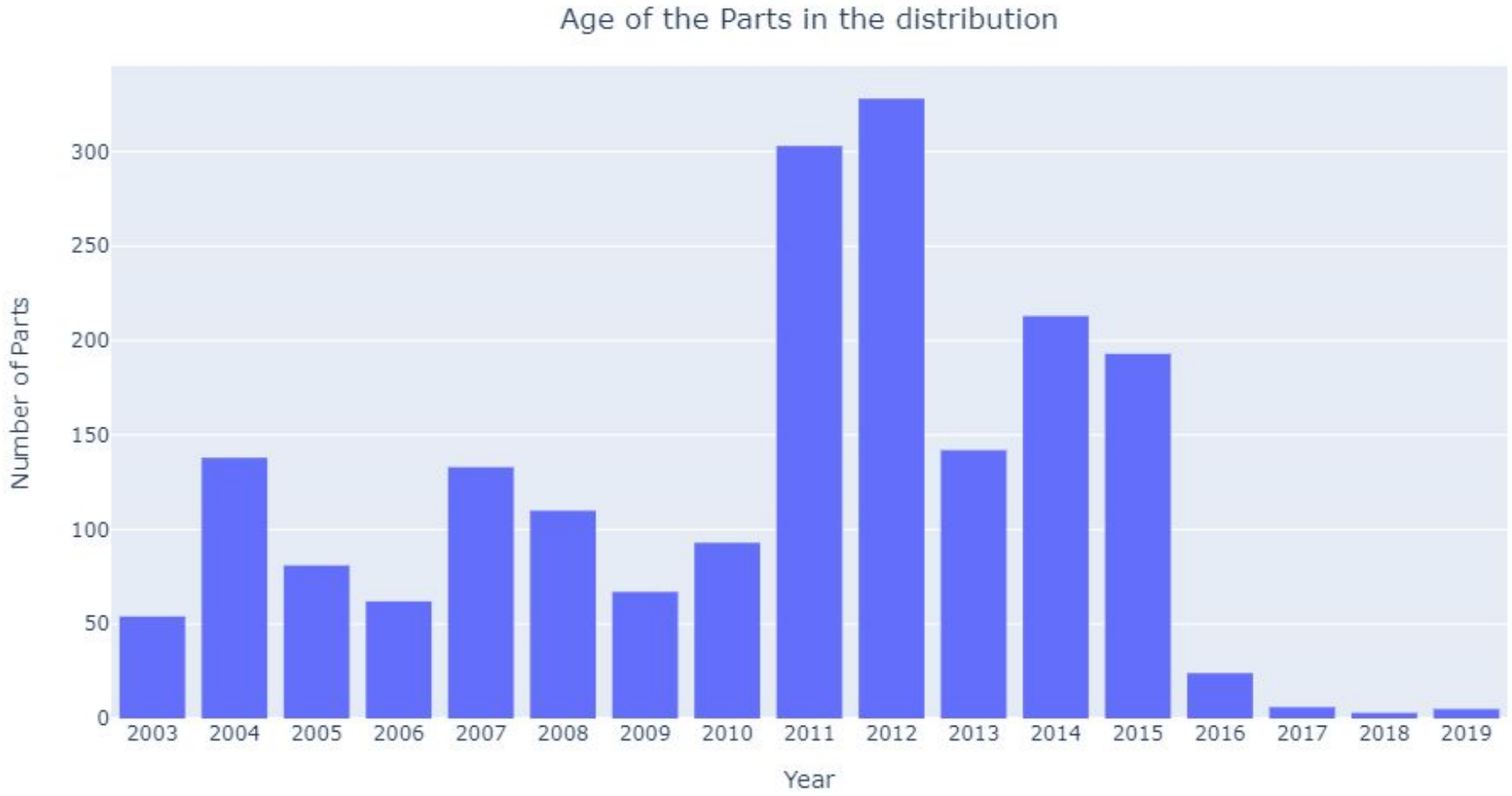


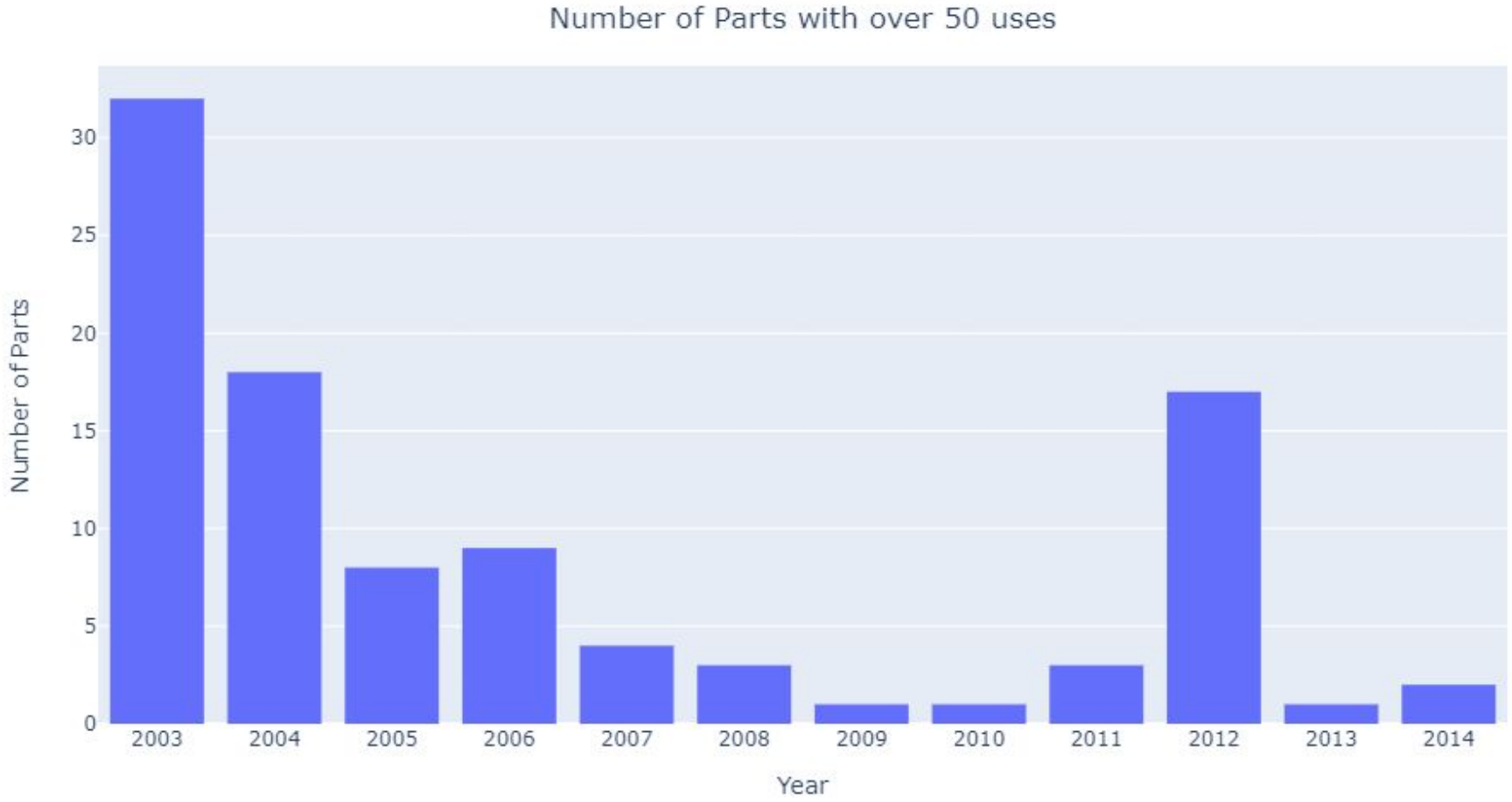
Most parts are barely used

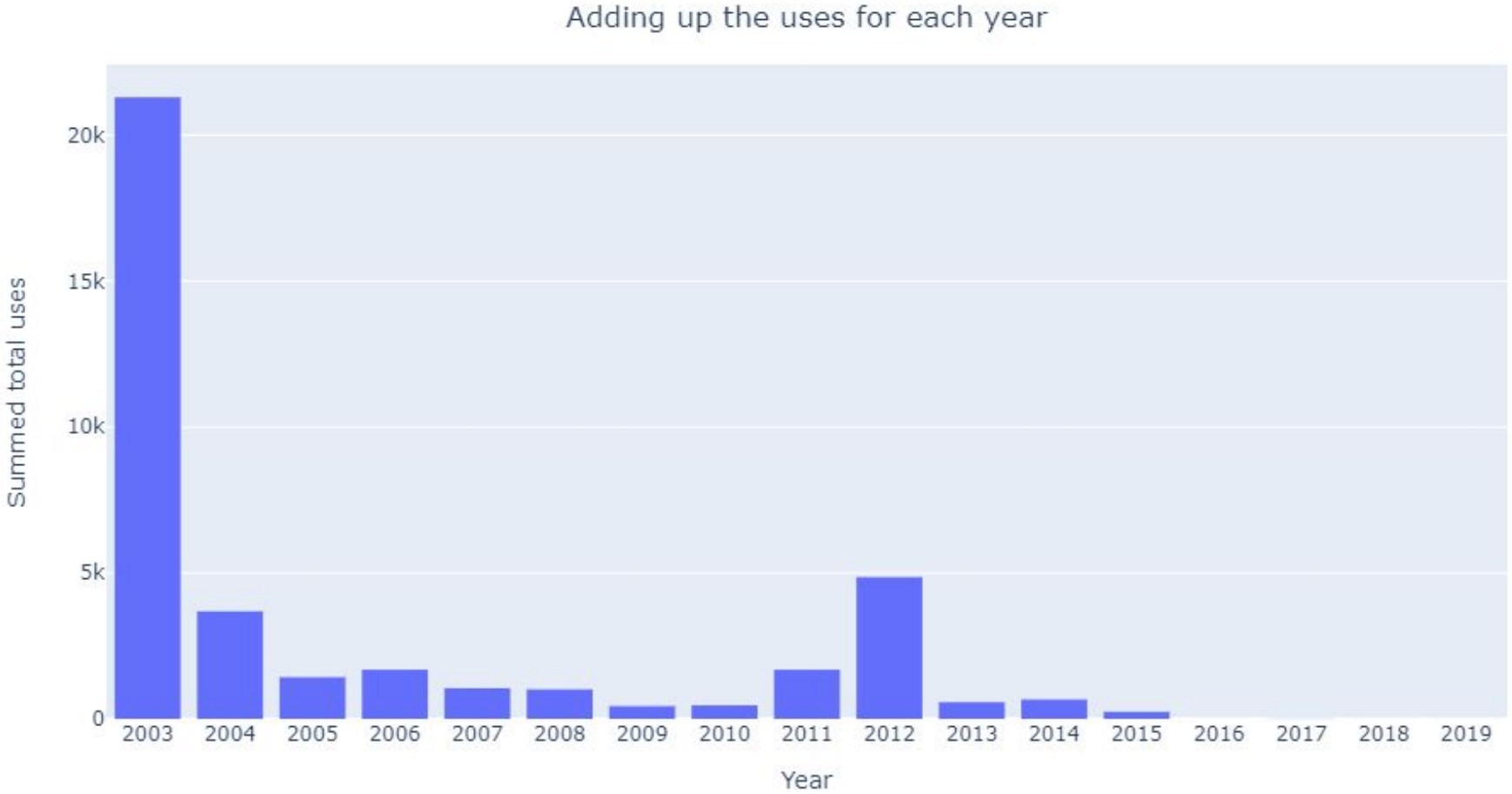
Including all of the twin parts, the majority of parts in the distribution are rarely used

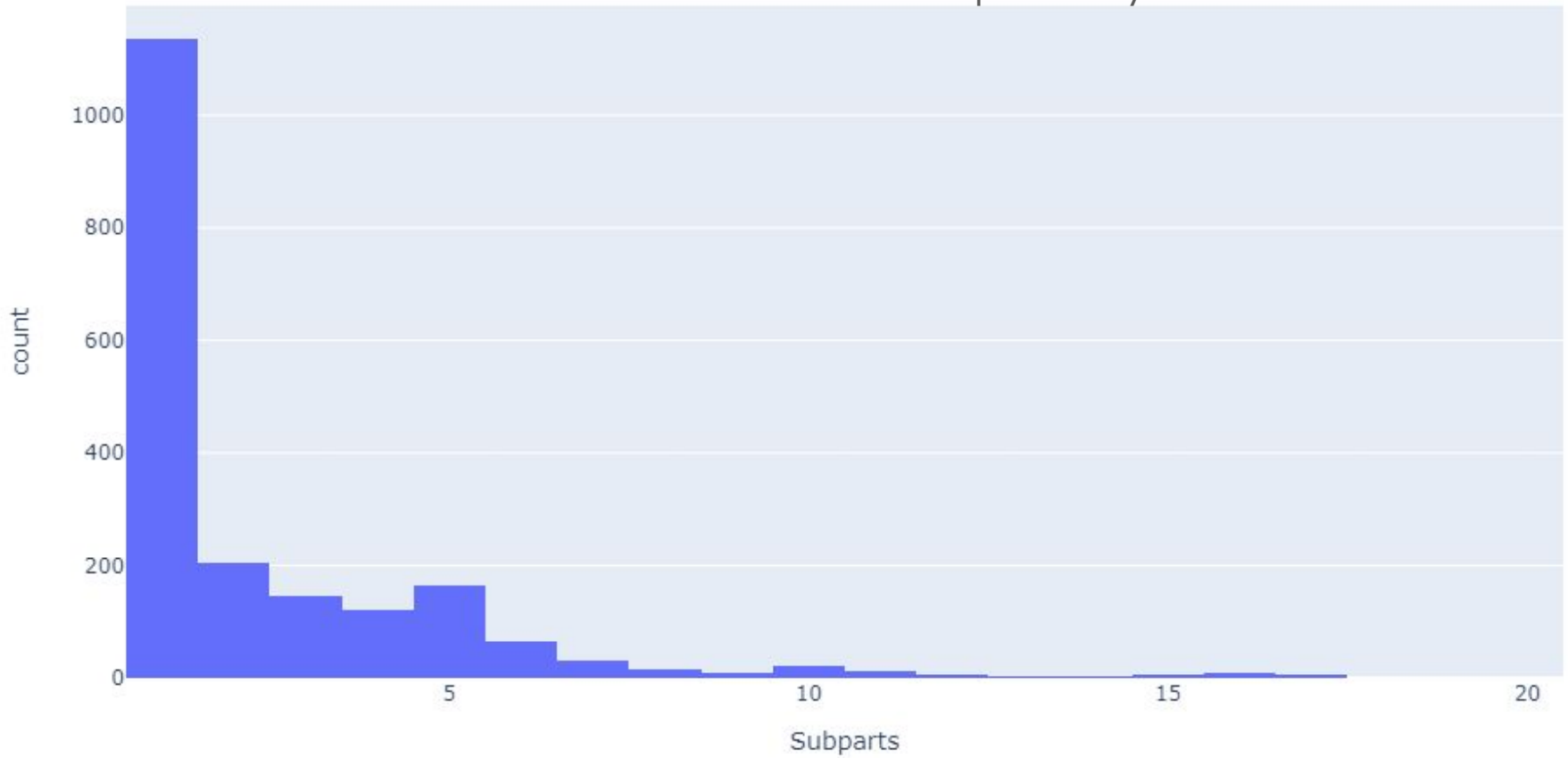
818 (41.8%) haven’t been used at all

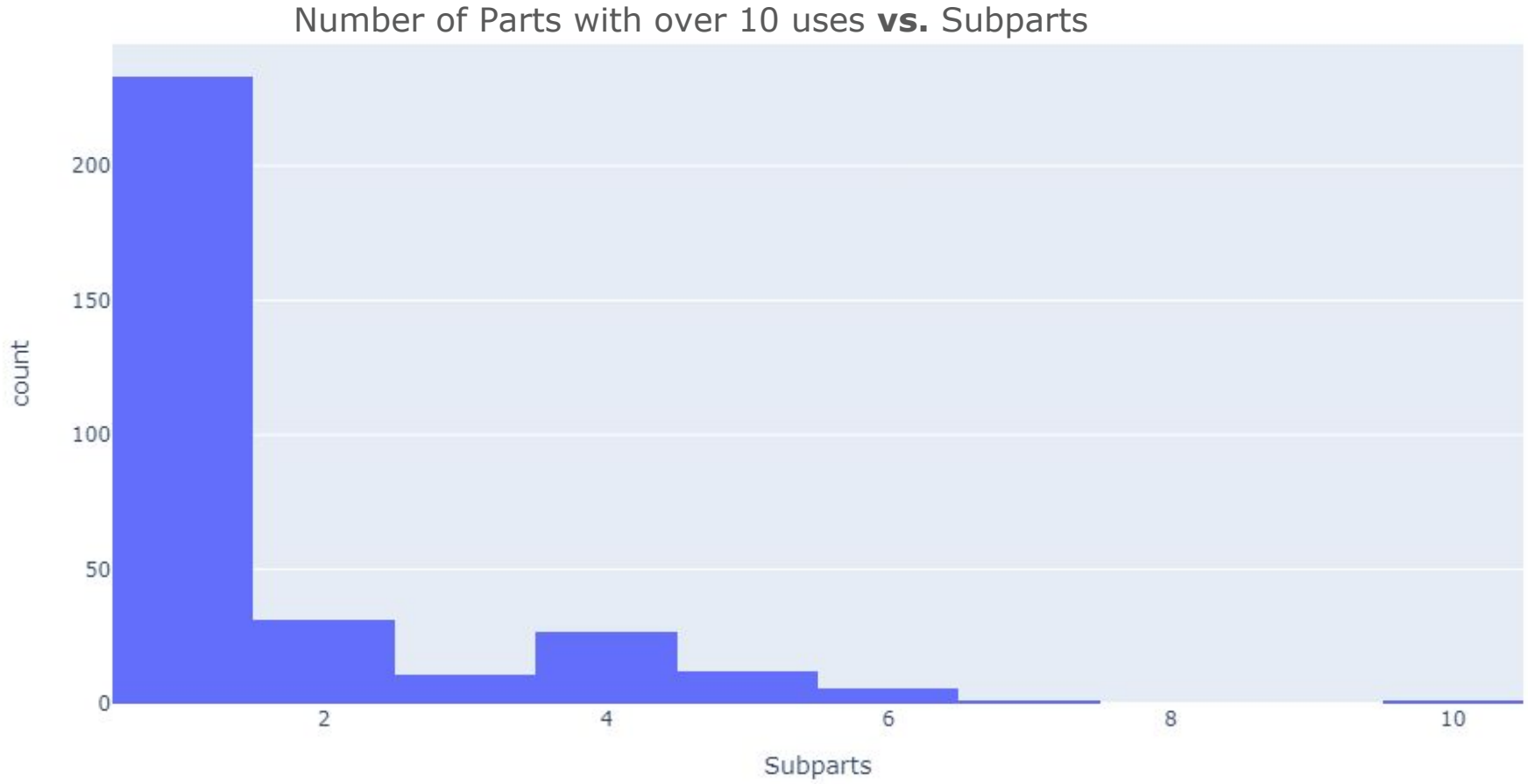
1633 (83.5%) have been used less than 10 times


Age of the Parts in the distribution
Number of Parts
0
50
100
150
200
250
300
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Year


Number of Parts with over 50 uses
Number of Parts
0
5
10
15
20
25
30
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Year


Adding up the uses for each year
Summed total uses
20k
15k
10k
5k
0
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Year


Number of Parts **vs.** the amount of Subparts they consists of
count
1000
800
600
400
200
0
5
10
15
20
Subparts


Number of Parts with over 10 uses **vs.** Subparts
count
200
150
100
50
0
2
4
6
8
10
Subparts

Examples

1 of 380 selected

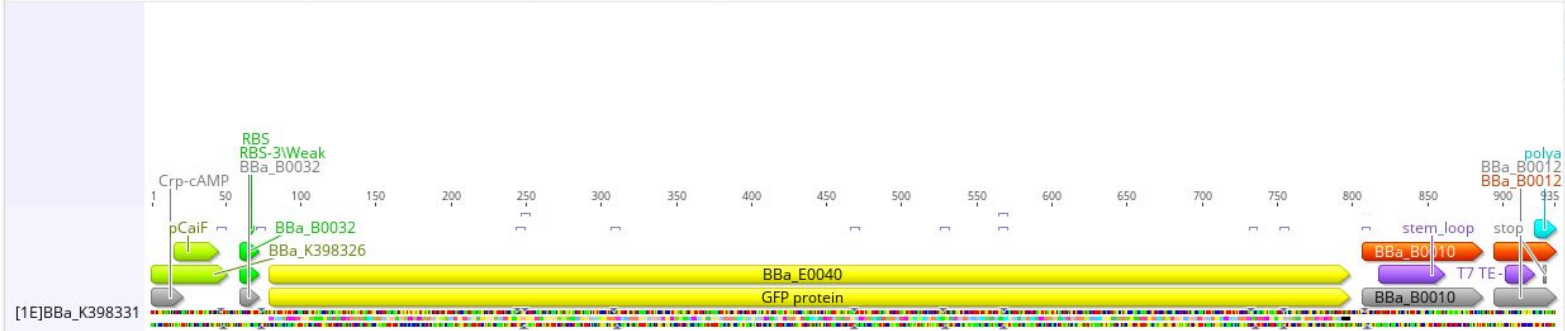
Name	Description	Modified	Organism	Sequenc...	Accession	Topology	Molecule Ty...	Genetic Code	Taxonomy	Path (Import...	Filename (Imported From)
[1A]BBa_K314110	f1 origin	01 Jan 1980	.	455	BBa_K31411...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K314110-1A.gb
[1B]BBa_K731722	T1 terminator from E. coli rrnB	01 Jan 1980	.	79	BBa_K73172...	linear	DNA	S			B.gb
[1C]BBa_K398326	Promoter of the CaiF protein	01 Jan 1980	.	51	BBa_K39832...	linear	DNA	S			C.gb
[1D]BBa_K731722	T1 terminator from E. coli rrnB	01 Jan 1980	.	79	BBa_K73172...	linear	DNA	S			D.gb
[1E]BBa_K398331	pCaiF-B0032 measurement device	01 Jan 1980	.	935	BBa_K39833...	linear	DNA	S			E.gb
[1F]BBa_K808025	FsC: Cutinase PET cleaving enzyme	01 Jan 1980	.	651	BBa_K80802...	linear	DNA	S			F.gb
[1G]BBa_K314100	High constitutive expression cassette	01 Jan 1980	.	518	BBa_K31410...	linear	DNA	S			G.gb
[1H]BBa_K808001	tphC: terephtalate periplasmatic binding prote...	01 Jan 1980	.	969	BBa_K80800...	linear	DNA	S			H.gb
[1I]BBa_K314101	Low constitutive expression cassette	01 Jan 1980	.	518	BBa_K31410...	linear	DNA	S			I.gb
[1J]BBa_K808003	tctB_162: small subunit B1 of the tripartite tric...	01 Jan 1980	.	489	BBa_K80800...	linear	DNA	S			J.gb
[1K]BBa_K314201	Antitoxin Tsi2	01 Jan 1980	.	234	BBa_K31420...	linear	DNA	S			K.gb
[1L]BBa_K808010	tphB: reaction from DCD to protocatechuate	01 Jan 1980	.	948	BBa_K80801...	linear	DNA	S			L.gb
[1M]BBa_K314202	Toxin+ Antitoxin-Tse2 + Tsi2	01 Jan 1980	.	720	BBa_K31420...	linear	DNA	S			M.gb
[1N]BBa_K808011	tphA1: reduces the tphA2A3 complex	01 Jan 1980	.	1,011	BBa_K80801...	linear	DNA	S			N.gb
[1O]BBa_K346002	PmerT promoter (mercury-responsive)	01 Jan 1980	.	57	BBa_K34600...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K346002-1O.gb
[1P]BBa_K808013	tphA3: Catalyzes together with tphA2 TPA to D...	01 Jan 1980	.	465	BBa_K80801...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K808013-1P.gb
[2A]BBa_K548000	Humanized Aequorin	01 Jan 1980	.	594	BBa_K54800...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K548000-2A.gb
[2B]BBa_K325210	Red Firefly Luciferase and LRE <i>L. Cruci...	01 Jan 1980	.	2,623	BBa_K32521...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K325210-2B.gb
[2C]BBa_K648028	Cro, Lamda Repressor which activates the lytic...	01 Jan 1980	.	201	BBa_K64802...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K648028-2C.gb
[2D]BBa_K325219	Red Firefly Luciferase and LRE (under pBAD)<...	01 Jan 1980	.	3,841	BBa_K32521...	linear	DNA	Standard	-	C:\Users\Ce...	6411-BBa_K325219-2D.gb

iGEM Distribution 2021 0

- Plate 1 380
- Plate 2 374
- Plate 3 348
- Plate 4 361
- Plate 5 380
- Plate 6 256

Sequence View | Annotations | Text View | Lineage | Info

Extract | R.C. | Translate | Add/Edit Annotation | Allow Editing | Annotate & Predict | Save



10 %

Live Annotate & Predict

Annotate from...

Source: Reference Features

Similarity: 100 %

Find: Best match

All matching annotations

Apply | Advanced...

Find ORFs

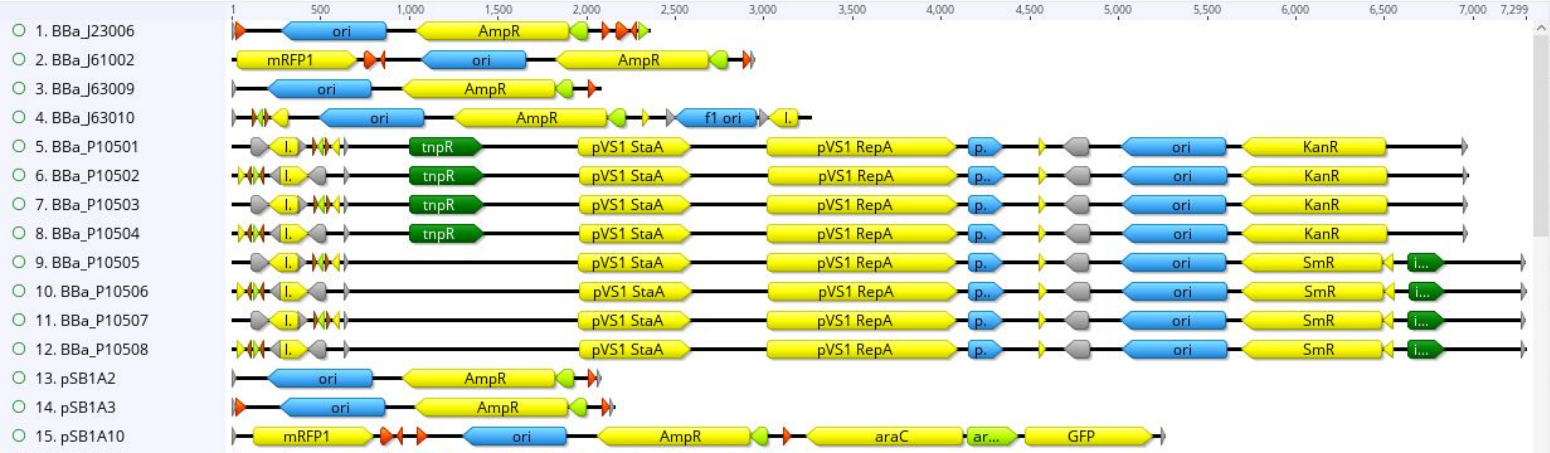
Minimum size: 400

Genetic code: Standard

Name	Description	Modified	Organism	Sequenc...	Accession	Topology	Molecule Ty...	Genetic Code	Taxonomy	Path (Import...	Filename (Imported From)
pSB1C3	High copy BioBrick assembly plasmid	29 Jul 2021 7:22 pm		2,070	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	371808.gbk
pSB1C6	pSB1C3 based Type IIS backbone	29 Jul 2021 10:09 pm		2,098	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	222895.gbk
pSB1K01	pOdd1 Loop Vector based on pSB1K3	30 Jul 2021 1:32 pm		2,195	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	180932.gbk
pSB1K02	pOdd2 Loop Vector based on pSB1K3	30 Jul 2021 1:33 pm		2,195	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	650996.gbk
pSB1K3	High copy BioBrick assembly plasmid	29 Jul 2021 10:18 pm		2,204	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	174305.gbk
pSB1K03	pOdd3 Loop Vector based on pSB1K3	30 Jul 2021 1:34 pm		2,195	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	761097.gbk
pSB1K04	pOdd4 Loop Vector based on pSB1K3	30 Jul 2021 1:35 pm		2,195	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	695080.gbk
pSB1T3	High copy BioBrick assembly plasmid	29 Jul 2021 10:20 pm		2,461	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	396566.gbk
pSB2K3	Inducible copy number BioBrick plasmid	29 Jul 2021 10:19 pm		4,425	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	141419.gbk
pSB3C01	pEven1 Loop Vector based on pSB3C5	30 Jul 2021 1:28 pm		2,729	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	735204.gbk
pSB3C02	pEven2 Loop Vector based on pSB3C5	30 Jul 2021 1:29 pm		2,729	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	725183.gbk
pSB3C03	pEven3 Loop Vector based on pSB3C5	30 Jul 2021 1:30 pm		2,729	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	127014.gbk
pSB3C04	pEven4 Loop Vector based on pSB3C5	30 Jul 2021 1:30 pm		2,729	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	842518.gbk
pSB3C5	Low to medium copy BioBrick standard vector	29 Jul 2021 10:17 pm		2,738	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	285332.gbk
pSB3K3	Low to medium copy BioBrick standard vector	29 Jul 2021 7:26 pm		2,750	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	295979 (1).gbk
pSB3T5	Low to medium copy BioBrick standard vector	29 Jul 2021 10:21 pm		3,252	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	814891.gbk
pSB4A5	Low copy BioBrick standard vector	29 Jul 2021 10:15 pm		3,395	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	497914.gbk
pSB4C5	Low copy BioBrick standard vector	29 Jul 2021 10:18 pm		3,221	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	475911.gbk
pSB4K5	Low copy BioBrick standard vector	29 Jul 2021 10:20 pm		3,419	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	151165.gbk
pSB6A1	pBR322 converted to BioBrick vector (formally...	29 Jul 2021 10:16 pm		4,022	<unknown	circular	DNA	Standard	-	C:\Users\Ce...	782671.gbk

Sequence View | Annotations | Lengths Graph | Virtual Gel | Text View | Info

Extract | R.C. | Translate | Add/Edit Annotation | Allow Editing | Annotate & Predict | Save



General

Colors: A C G T - Edit

Graphs Options

Annotations Options

Complement
Translation Options

Restriction Sites Options

Circular Overview

Wrap

Show Names

Show Description

Show sequence numbers

Airtable

Grid view

Hide fields | Filter | Group | Sort

	Plate	Well	Part	Type	Short Description	Plasmid	Resistance	Compatability	Recognition Sites	Sequencing	Well Status
41	Plate 1	3I	BBa_K538004	Coding	CspC (P. irgensii)	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
42	Plate 1	3J	BBa_S05060	Intermediate	K873000:B0015	pSB1C3	chloramphenicol	RFC[10] RFC[1000]	NotI	Confirmed(A)	OK
43	Plate 1	3K	BBa_K538000	Coding	Cpn10 (O. antarctica)	pSB1C3	chloramphenicol	RFC[10]	BsaI	Confirmed(A)	OK
44	Plate 1	3L	BBa_K774001	Regulatory	Mammalian-Bacterial Promoter: E9-ns2 CArG ...	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
45	Plate 1	3M	BBa_K525998	Regulatory	Promoter T7 and RBS	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
46	Plate 1	3N	BBa_K748002	Coding	Truncated lysostaphin coding sequence. ...	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
47	Plate 1	3O	BBa_K608002	Intermediate	strong Promoter and strong RBS	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
48	Plate 1	3P	BBa_S05048	Intermediate	B0034:K748000	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
49	Plate 1	4A	BBa_K331022	Composite	RBS with N-terminal Oligo Arginine - EYFP Fusion	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Bad Sequencing(A)	OK
50	Plate 1	4B	BBa_K381001	Composite	Nitrate reporter: PyeaR - GFP composite	pSB1C3	chloramphenicol	RFC[10]	BsaI	Confirmed(A)	OK
51	Plate 1	4C	BBa_K331024	Composite	RBS with N-terminal Oligo Arginine - ECFP Fusion	pSB1C3	chloramphenicol	RFC[10] RFC[1000]		Confirmed(A)	OK
52	Plate 1	4D	BBa_K314103	Composite	Lac induced expression cassette	pSB1C3	chloramphenicol	RFC[10] RFC[1000]	BsmBI BpiI	Long part(A)	OK
53	Plate 1	4E	BBa_K558009	Coding	Thiamin monophosphate pyrophosphorylase	pSB1C3	chloramphenicol	RFC[10]	BsaI	Confirmed(A)	OK
54	Plate 1	4F	BBa_K346000	Translational_Unit	RBS(B0032)+T3 DNA-directed RNA polymerase	pSB1C3	chloramphenicol	RFC[10]	BsaI BsmBI BpiI	Long part(A)	OK
55	Plate 1	4G	BBa_K575008	Composite	LasR/PAI1 Inducible	pSB1C3	chloramphenicol	RFC[10]	BsaI	Inconsistent(A)	OK

2,126 records

Discussion