

```

$ python3
...
>>> from arches import *
>>> try:
...     OpenMeander(1)
... except OpenMeanderError as e:
...     print(e)
...
Not a permutation of {1, ..., n} for some n ≥ 2
>>> try:
...     OpenMeander(1, 2, 2)
... except OpenMeanderError as e:
...     print(e)
...
Not a permutation of {1, ..., n} for some n ≥ 2
>>> try:
...     OpenMeander(1, 3, 2, 4)
... except OpenMeanderError as e:
...     print(e)
...
Does not define an open meander
>>> try:
...     OpenMeander(4, 3, 1, 2, 5)
... except OpenMeanderError as e:
...     print(e)
...
Does not define an open meander
>>> m = OpenMeander(2, 3, 1, 4)
>>> m.extended_dyck_word_for_upper_arches
'(())
'
>>> m.extended_dyck_word_for_lower_arches
'(1)1'
>>> m.draw('open_meanders_1.tex')
>>> m = OpenMeander(1, 10, 9, 4, 3, 2, 5, 8, 7, 6)
>>> m.extended_dyck_word_for_upper_arches
'((((((()))))'
>>> m.extended_dyck_word_for_lower_arches
'1(((1)))'
>>> m.draw('open_meanders_2.tex', 1.2)
>>> m = OpenMeander(5, 4, 3, 2, 6, 1, 7, 8, 13, 9, 10, 11, 12)
>>> m.extended_dyck_word_for_upper_arches
'((())((()1))'
>>> m.extended_dyck_word_for_lower_arches
'(((1))((()())))
'
>>> m.draw('open_meanders_3.tex', 0.7)
>>> ^D
$
```