

# 1 ISL Specification

ISL code is a set of *moves* over a canvas.

We start with a description of ISL grammar.

## 1.1 ISL Grammar

```
<program>      ::=      <move> | <move> <newline> <program>
<move>         ::=      <pcut-move> | <lcut-move> | <color-move> |
<swap-move> | <join-move>
<pcut-move>    ::=      "cut" <block> <position>
<lcut-move>    ::=      "cut" <block> <orientation> <line>
<color-move>   ::=      "color" <block> <color>
<swap-move>    ::=      "swap" <block> <block>
<join-move>    ::=      "join" <block> <block>
<orientation>  ::=      "x" | "y"
<block>        ::=      "[" <block-id> "]"
<position>     ::=      "[" <x> "," <y> "]"
<color>        ::=      "[" <r> "," <g> "," <b> "]"
<block-id>     ::=      <id> | <id> "." <block-id>
<x> | <y>      ::=      "0", "1", "2"...
<id> | <line>  ::=      "0", "1", "2"...
<r> | <g> | <b> ::=      "0", "1", "2"... "255"
<newline>     ::=      "\n"
```