

Tracer des figures géométriques avec Matatalab



[Présentation vidéo du robot](#)



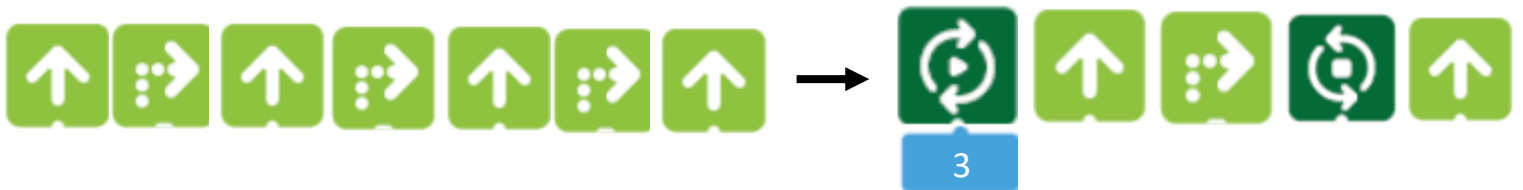
Pour tracer les figures, les élèves vont utiliser les blocs de déplacements. Les blocs pour avancer ou reculer réalisent des pas de 10cm, les blocs pivoter permettent seulement de réaliser des angles droits.



Le nombre restreint de blocs *déplacements* (4 de chaque) va obliger les élèves à repérer les répétitions dans les algorithmes et à utiliser d'autres blocs représentant des notions utiles en programmation informatique :

- Les répétitions :

Pour dessiner un carré

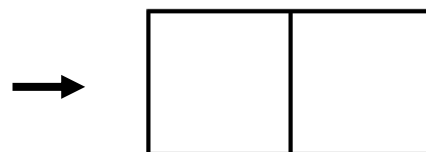


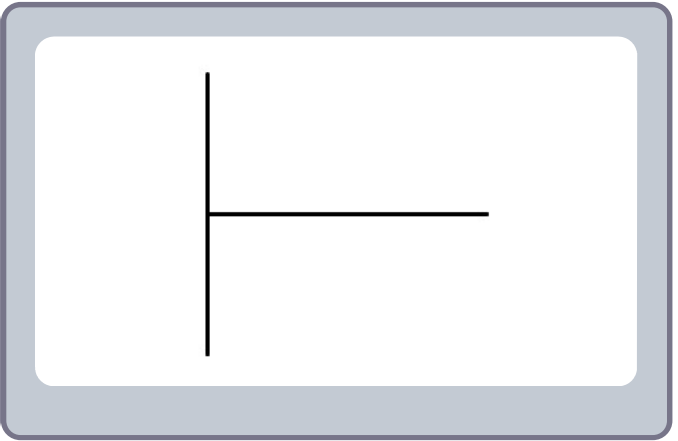
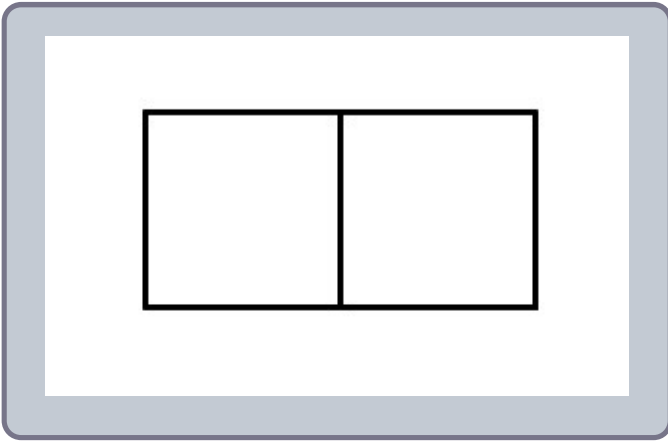
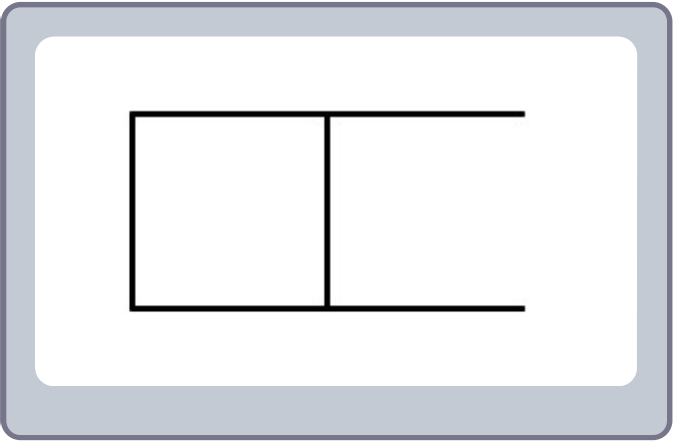
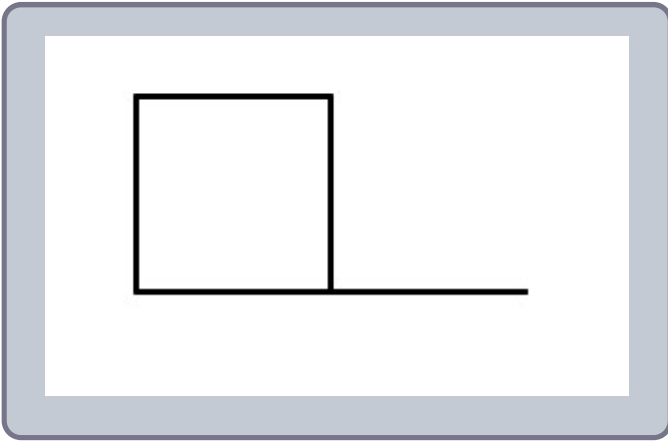
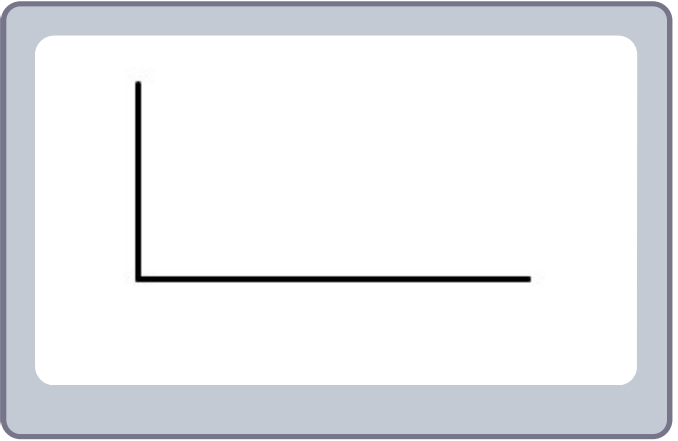
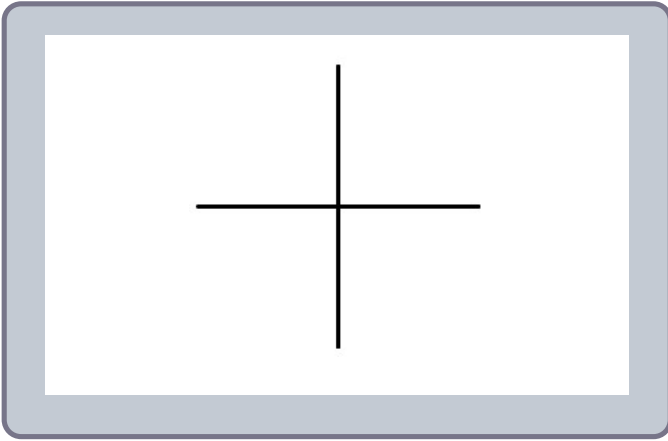
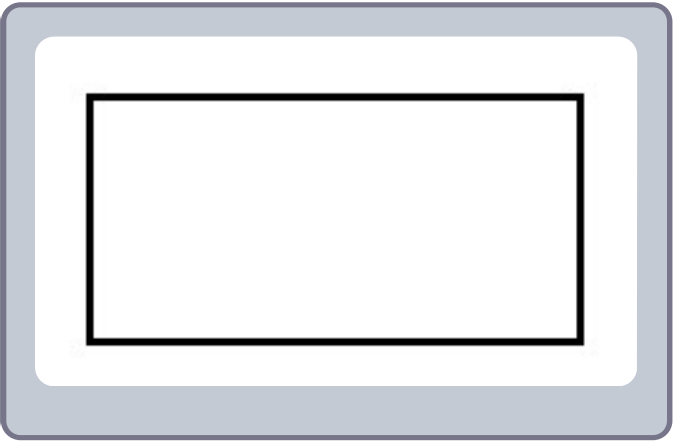
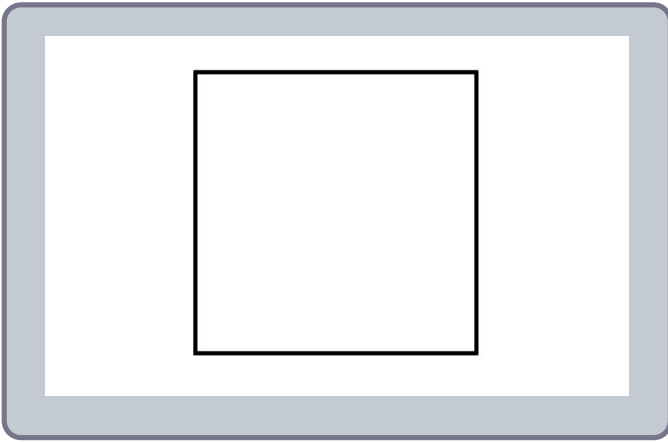
- Les fonctions (*sous-programmes*) :

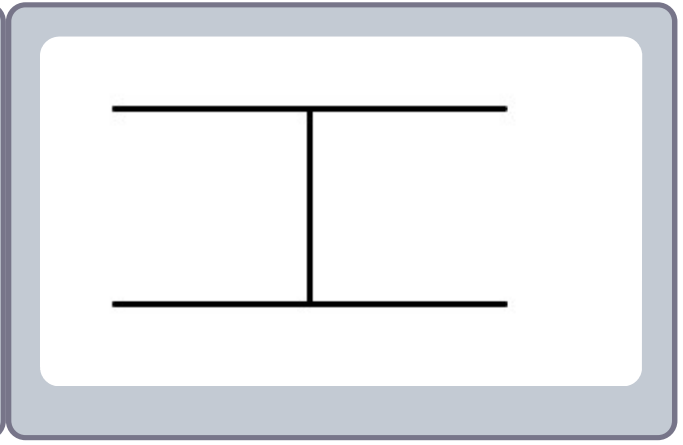
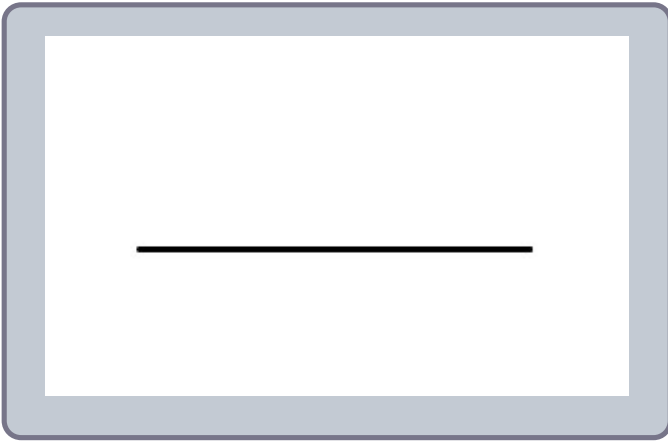
Programme avec appels de la fonction

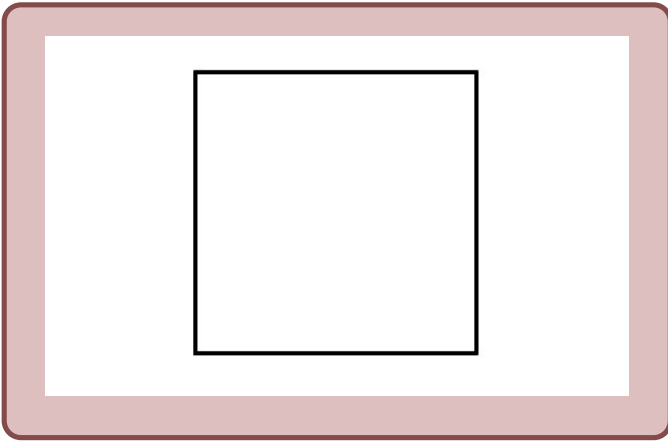


Sous-programme pour dessiner un carré



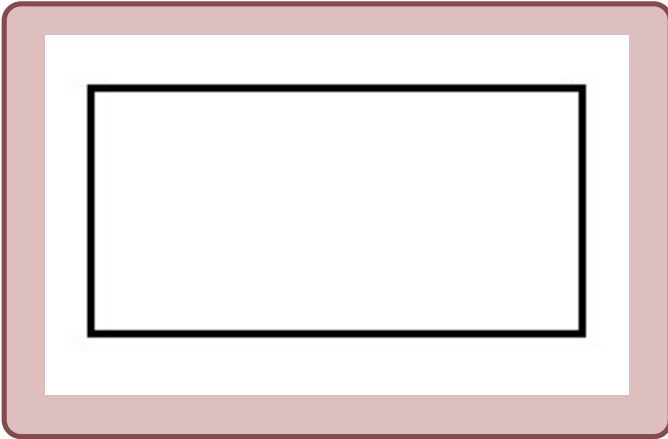






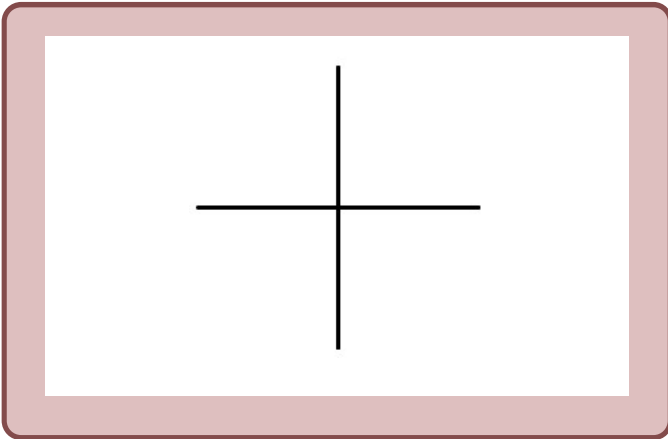
Blocs possibles

A collection of six possible blocks for a square. The top row contains three green blocks: a right-pointing arrow with three dots, a left-pointing arrow with three dots, and an upward-pointing arrow. The bottom row contains three blocks: a blue folder icon, a circular refresh icon, and a square refresh icon.



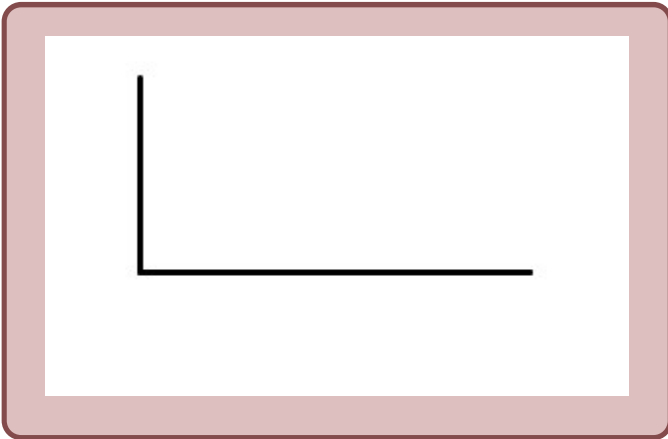
Blocs possibles

A collection of four possible blocks for a horizontal rectangle. From left to right: a blue folder icon, a green right-pointing arrow with three dots, a green left-pointing arrow with three dots, and a green upward-pointing arrow.



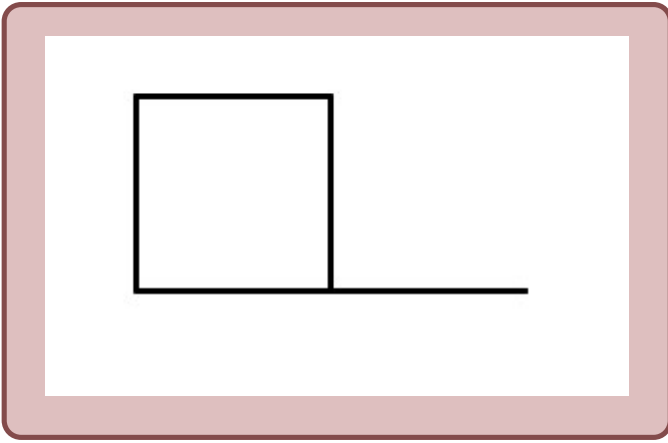
Blocs possibles

A collection of five possible blocks for a cross. From left to right: a blue folder icon, a green right-pointing arrow with three dots, a green left-pointing arrow with three dots, a green upward-pointing arrow, and a green downward-pointing arrow.

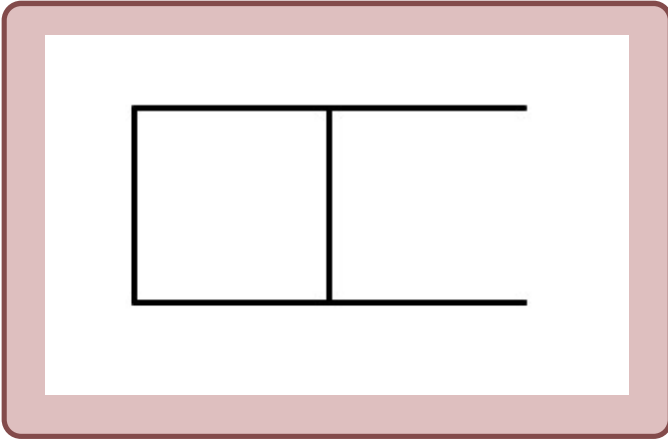


Blocs possibles

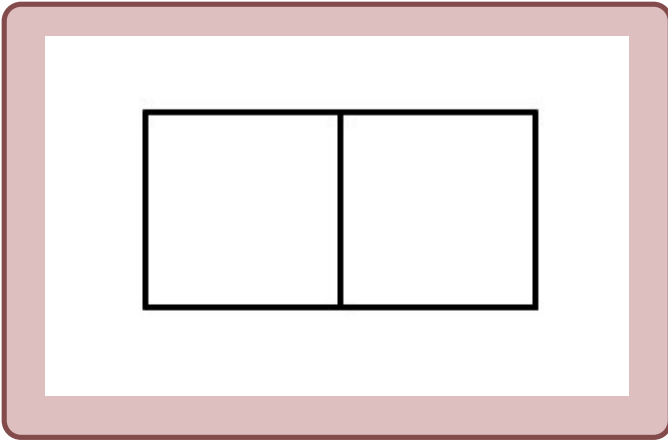
A collection of four possible blocks for an L-shaped corner. From left to right: a blue folder icon, a green right-pointing arrow with three dots, a green left-pointing arrow with three dots, and a green upward-pointing arrow.



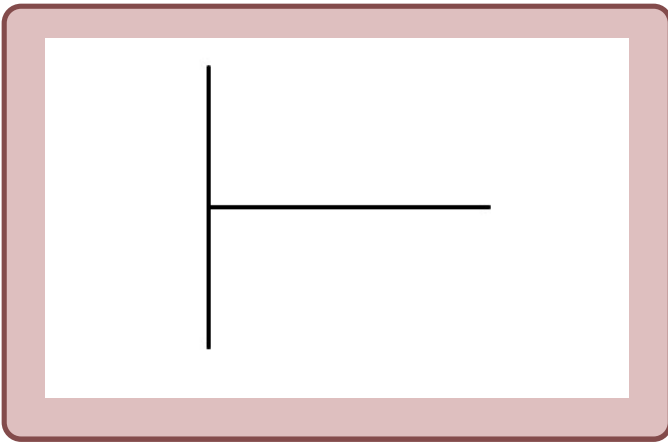
Blocs possibles



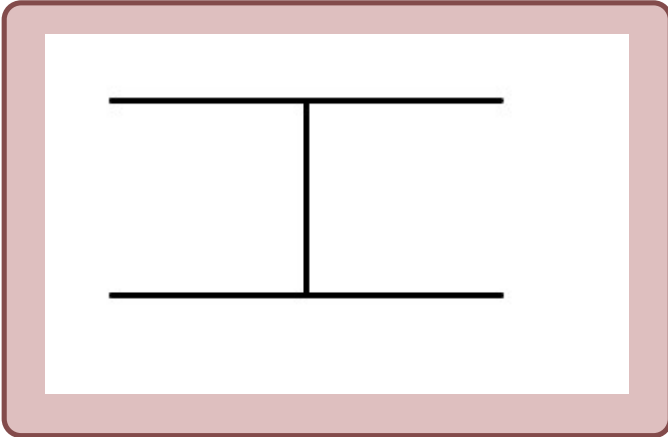
Blocs possibles



Blocs possibles



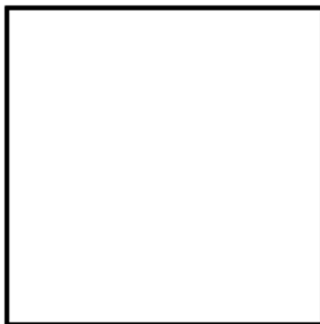
Blocs possibles



Blocs possibles

A row of five icons. From left to right: a green square with three white dots and a white arrow pointing right; a green square with three white dots and a white arrow pointing left; a green square with a white arrow pointing down; a green square with a white arrow pointing up; and a blue folder icon.

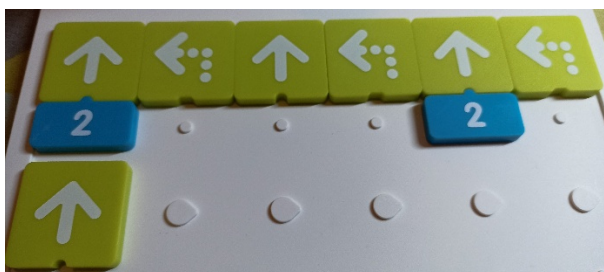
Corrections possibles des différentes constructions

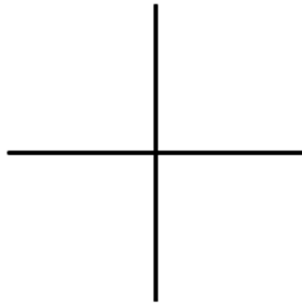


Correction possible



Correction possible

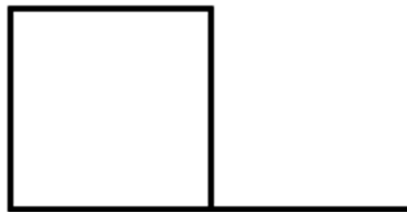




Correction possible



Correction possible



Correction possible





Correction possible



Correction possible



Correction possible



Correction possible

