Tutorial: Constructing Turing machines in Automata Tutor

States

Creating a new state:
- left click
- or: right click → Add State

Deleting a state:
- drag it onto the trash can

Making a state final, initial, non-final or non-initial:
right click → [chose the desired menu item]

Transitions

Creating a new transition

- Create both source and target state.
- Hover over the source state.
- *Single-tape TM:* Click and hold the symbol that the TM should read.
- *Multi-tape TM:* Click on the symbols that the TM should read on the different tapes in order. Click and hold the last symbol.
- Drag the arrow onto the target state.
- Modify the transition (see next step).

Modifying a transition

- Hover over the symbol(s) on the transition arrow. This opens up a menu.
- In the center of the menu you can see the symbol(s) the TM needs to read to use this transition.
- *Multi-tape TM:* On the top you can switch between tapes.
- On the left you can select the symbol that will be written to the tape.
- On the right you can select the direction in which the head of the tape will move.

You can change the target state of a transition by dragging the arrow to another state.

Deleting a transition

- Drag the arrow onto the trash can.
  **Warning:** This will delete all transitions using that arrow.