Bruges Automa

A rewrite of [BRUGES AUTOMA VARIANT RULES](#) by [Francesco Fuco](#),
Images sourced from the [Bruges rulebook](#),
Written by [Robert Konigsberg](#)

These rules describe the mechanism of an automated player in Stefan Feld's *Bruges*. This Automa provides the experience of playing against an actual opponent without being punishingly complex -- every decision is small, allowing human players to focus on their own game. You may play this solo as a second opponent, or in a multi-player game as an extra opponent.

Most rules stay the same; exceptions and variations are below.

1. Changes to set-up

The Automa needs: a) an additional d6, known as the *Automa die*, b) the scenario sheet at the end of the rules, and c) a spare worker used to track the Automa's progress through a scenario.
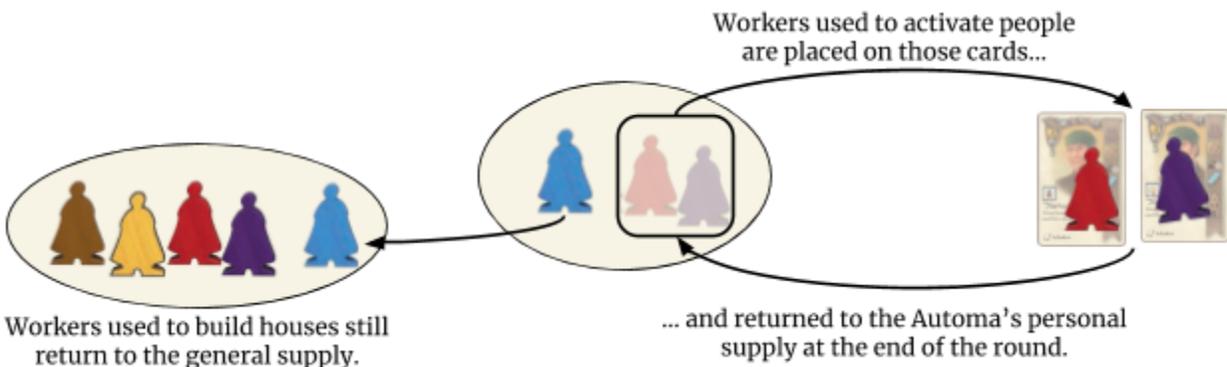
2. <u>Important rules and definitions</u>

Rules about matching colors

With one exception *the Automa never needs to match a worker or card's color with the action it wants to perform.* For instance, the Automa may use a yellow card to discard a blue threat marker. *The only time color matters is when it takes guilders.* There are still rules about choosing a card to discard, but you don't need to read that yet. (Person bonuses and actions about building colors still apply.)

Rules about workers used to activate people

When activating cards with a worker icon, place the worker on top of the activated card instead of discarding it. Workers used that way return to the Automa in Phase 4. Workers used to build houses still go back to the general supply, and worker color remains irrelevant, as mentioned above. *Workers on cards are also safe from the Beggar card and the blue threat markers.*


Workers used to activate people are placed on those cards...

Workers used to build houses still return to the general supply.

... and returned to the Automa's personal supply at the end of the round.

Pip value

Throughout the rules, a card's *pip value* means the number of pips shown on the die matching the color of that card. For example, if the red die shows 4, the *pip value* of all red cards that round is 4.

Icon value scale

When choosing between cards with different activation icon types, the Automa uses this scale:
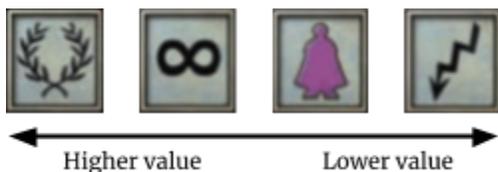
1. Laurel (game-end bonuses)
2. Infinity loop (continuous)
3. Worker (activated through a worker)
4. Arrow (*one-use* effects)

Rules about using cards (aka *least valuable card* and the *most valuable card*)

Because the Automa does not pay close attention to colors, it has its own rules for choosing what to discard using the *least valuable card*.

1. Lowest *pip value.*
2. Lowest *point value*
3. *Least valuable icon*

If it's still unclear (which happens often) just make an arbitrary choice. Don't even think about it - giving you clearer instructions would only take time away from playing and most likely has no predictable impact. Whatever order they happen to be in is fine.

> Hopefully the term *most valuable card* is obvious from the description above. But in order, it's highest pip value, highest point value, most valuable icon.

Tip: Rather than needing to continually evaluate which card is the most or least valuable, order the cards once they're drawn and don't think about it again.

Discarding cards

Most actions involve discarding a card, and it's part of other actions and events (e.g., Plague threat, Queens Maid, Sealer.) Always discard the *least valuable card* from the Automa's hand or play area.

3. Changes to Game Phases

Phase 1: Draw cards

In this phase, only human players refill their hands. The Automa does not refill its hand just yet.

Phase 2: Roll the dice (and fill the Automa's hand)

This phase includes distributing threat markers and advancing on the reputation track. The Automa will advance on the reputation track if it costs 4 guilders or less.

Once that's all done, the Automa refills its hand to five cards. Draw one card at a time, preferring the card with the *highest pip value*, a value which is obvious now that the dice have been rolled.

> **Example:** The visible cards are yellow and red. The yellow die shows 6 and the red die shows 3. The Automa chooses the card with the yellow back.

If both cards have the same *pip value*, the Automa always chooses the card from the leftmost deck. *(Note: this means having some notion of which deck is* left *and which is* right*.)*

Phase 3: Play cards and perform actions

On the Automa's first turn

On every turn including the first, the Automa moves through the scenario tree until it completes *a single action.* But on the Automa's first turn of each phase, start with these two things:

Roll the Automa die. This defines the scenario the Automa will focus on this round. Place the spare worker on the scenario sheet matching the value rolled. More about the scenarios later.

Activate its people. Starting with the earliest-recruited person in a house, the Automa activates any person with a *once per round* power or *discard a worker* power. Each worker used to activate a card's power is put on top of the card it activated as described in *Rules about discarding workers.*

Note: only activate *discard a worker* powers when the Automa has enough workers. For example if the Automa has 3 workers and 5 *discard a worker* cards, it will only execute its *leftmost* 3 cards.

Note: Put workers on cards even when the Automa gains no benefit from the action. For example: Charcoal Burner reads "You can exchange any number of your workers into workers of any other colors." The Automa gains nothing from this, but still moves a worker onto Charcoal Burner.

All Automa turns

The Automa's marker will start every round at the start node of a decision tree. Move the marker along the tree until it hits an *action* or a *branching decision.*

If it lands on a *branching decision* (*Does the Automa need workers? Should the Automa build a house?*), evaluate it, and move the worker to the appropriate branch in the tree, which might be another branching decision but is probably an *action.*

Actions are also evaluated. If the Automa can perform the action it is on, it completes it and ends its turn. If not, the Automa moves to the next step in the tree, continually evaluating decisions and actions until it completes one action.

Most tree branches end with references to other scenario trees. If the Automa reaches one of those nodes, move the marker to the start of the new scenario and continue.

The Scenario Decisions

+🏠 ? Can the Automa build a house? It can if all its houses are occupied, and a worker is available .

🃏 → 🏠 ? Can the Automa put a person in a house? It can if it has an unoccupied house, and enough guilders to pay the cost for at least one of them.

🏠 ? Does the Automa have an unoccupied house?

♟ < 3? Does the Automa have fewer than 3 workers?

🃏 > 🪙 ? Are all the people in the Automa's hand too expensive for it to purchase?

+ 🟦 ? Can the automa build a canal? It can if it has the money for either canal side.

🔻 →? Does the Automa have any threat markers?

🪙 < 7ƒ Does the Automa have fewer than 7 guilders?

The Scenario Actions

✚ 🏠 : Build a house

The Automa discards a worker from its personal supply back to the general supply, and places the *least valuable card* face down. As mentioned above, the Automa can only have one unoccupied house, and it cannot use workers sitting on people.

If there is already an unoccupied house or the Automa has no spare workers, skip to the next action.

👤 → 🏠 : Recruit a person

The Automa will recruit the person at the top of this priority tree:

1. Highest point value it can afford
2. *Most valuable icon*
3. *Least valuable card*

Activate one-use and once-per-round bonuses immediately. Place a worker on the person if the card's behavior needs it, and skip the action if there are no free workers.

Note that having workers is not a necessary part of choosing which person to recruit.

If the Automa cannot recruit a person, skip to the next action.

✚ 🟦 : Build 1 Canal token

The Automa prefers to advance the canal with the most tokens. If it cannot afford to build on that side, it builds on the other side. Choose an arbitrary side if both canals have the same length, it is irrelevant.

Discard the Automa's *least valuable card*, pay the canal space's cost, and place the token.

If the Automa cannot build a canal, it skips to the next action.

🔴 → : Discard threat markers

Discard the Automa's *least valuable card*, and *all the threat markers* of a single color, gaining 1 point per marker. It will discard the set of markers it has the most of. In case of a tie, use this priority:

> Blue, yellow, red, brown, purple, red*

> * Once the Automa completes a canal section, red's priority drops to the end.

If the Automa has no threat markers skip to the next action.

→ 🧍 : Take workers

The Automa discards its *least valuable card* and takes two workers of arbitrary color. If it has <u>more than two workers</u>, skip to the next action.

→ 🪙 : Take Guilders

The Automa discards its *most valuable card*, and takes a number of guilders equal to the card's *pip value*. **This is the only rule where the card's color matters!**

The Automa skips to the next action if it has <u>7 or more guilders</u>.

Phase 4: Verify the 3 majorities and change the start player.

This phase doesn't change, but it is a good time to return workers to the Automa's personal supply as described in *Rules about discarding workers*, above.

Game end and final scoring

The Automa scores like a human with these changes:

- Each character earns the Automa 1 additional point.
- Every 4 coins earns the Automa 1 point.
- Every 2 workers earns the Automa 1 point, *except those workers that activate person card bonuses.*

4. Variants and ephemera

Removing a canal token

If the Automa has to discard a canal token, it will prefer to remove from the least developed side, *unless* one side is already complete, in which case it will remove from that side.

From original text: An already completed section to which a section is removed, cannot be completed again and therefore provide a second Statue bonus. **What does this mean?**

Removing a person from a building

In the event the Automa has to remove a person from a building (threat markers, Assassin) use this priority: *least valuable icon*, lowest point value, rightmost.

Card details

"Draw a card" or "Draw *n* cards": uses the same priority rules for filling the Automa's hand.

"Perform an action with that card": perform the next action in the scenario.

"Discard a card" or "Discard n cards from your hand": See rules section 2, above, *Discarding cards.*

"Discard 1 threat token": The rule for discarding all tokens of a color in the scenario does not apply here, although the discard priority still applies.

Actor: As it will be activated during Phase 3, only use it if there is an available unactivated person. (See *Really obscure cases*, below.)

Architect: Build the extra houses even though the Automa typically has no more than one unoccupied house.

Beggar: Take all available Automa workers and choose randomly. (Workers already on cards are protected.)

Jester: For end-game scoring, choose groups that gain the most points per person. (If that matters)

Physician: Discard as many coins as possible up to 5.

Scholar: This is the Automa's default behavior, so, no additional effect.

Notary: The Automa still spends up to 4 guilders to advance on the reputation track at times when other players might have to spend 6 guilders to advance.

Vandal: The Automa discards the most recent empty house. If no house is empty, the Automa follows standard rules for discarding a person.

Really obscure cases

If the Automa gains 3 red threat markers, it prefers to remove a canal token before a house.

If the Automa gains 3 blue threat markers, the workers already on cards are not discarded.

If a worker is removed from an Automa's card, rotate it until the end of the round. That way if it plays *Actor* the rotated card reminds people that the Actor cannot activate that card.

Variant: The Inn

Here the Automa has a special building known as *the Inn*. The Inn is reserved for people with laurels. For the Automa, the Inn is just a stack of cards it accumulates.

After filling the Automa's hand in Phase 2, if a card has a laurel icon, place it in the Inn. Draw a card to refill the hand (using the standard rules for drawing cards.) If more than one card has a laurel, prefer the card with the most points, and then the *least-valuable* card. If no cards have a laurel, nothing happens. No more than one card is placed in the Inn per round.

Variant: Balanced Card Draws

During set-up, place a spare worker next to one of the decks. When drawing cards for the Automa, if both cards have the same pip value, draw from the deck the worker is next to, and then move the worker to the other deck. This replaces the rule always choosing from the leftmost deck. The original rules just exhaust a single deck faster, so this prolongs the game to a more natural end.

Variant: Pets

These rules fit pretty naturally with the Pets expansion, with small clarifications:

- The Automa does not distinguish between card backs when drawing cards.
- Pets are ranked between the worker and lightning icons.
- When deciding whether the Automa can play a person and it has a pet in its hand, consider the term "unoccupied house" to mean "has space for a pet." Place pets in the leftmost house with a space for it.
- If the Automa has to remove a house (see *Removing a person from a building*), it values a house with both an animal and a pet by adding the person and pet points together and by the more valuable icon.

Priority Quick Reference

Icon scale: **Threat marker scale:**

Least valuable card: lowest *pip value*, lowest point value, *least valuable icon*.

Most valuable card: highest *pip value*, highest point value, *most valuable icon*.

Recruiting a person: highest point value, *most valuable icon*, *least valuable card*.

Removing a recruited person: *least valuable icon*, lowest point value, rightmost.

Canal Marker: Choose the most developed side. Break ties arbitrarily - it makes no difference.

5. Parting note

In rewriting Francesco's rules and testing them a bit, I made some minor changes and decisions (e.g. how to choose a person to remove from the Automa's buildings, how to select the least valuable card.) My goal was to maximize the clarity of Francesco's original rules, and I think my changes don't meaningfully impact that goal. Francesco wrote a great decision engine that doesn't take too much time away from the game. I hope you enjoy it as much as I have.

Scenarios