(remainder two). Start at $T$ to reject the empty word:

| | 0 | 1 |
|---|---|---|
| $Z$ | $Z$ | $O$ |
| $O$ | $T$ | $O$ |
| $T$ | $Z$ | $O$ |

.

The start has the same nonempty continuation behaviour as remainder two, so leading zeros and the one-symbol word zero are handled correctly. For five, use remainders $0, \ldots, 4$, accept zero, and a separate nonaccepting start $S$:

| | 0 | 1 |
|---|---|---|
| $S$ | 0 | 1 |
| 0 | 0 | 1 |
| 1 | 2 | 3 |
| 2 | 4 | 0 |
| 3 | 1 | 2 |
| 4 | 3 | 4 |

.

The prefix invariant proves correctness of these tables.

## Structural or analytic derivation