```
Minimal@k MD := Minimal@k =
\left(\operatorname{Array}\left[\operatorname{Shift}\left[k, \#1, \left(-1\right)^{\#2}\right] \&, \left\{2\operatorname{Length}\left(k, 2\right\}\right]\right)
          // Join @@ # &
       // KnotSort) [1];
```