

Jarvis' Wrap — Implemented

$p[0..N)$ contains a sequence of points.

p_{start} point with smallest x -coordinate.

q_{next} some *other* point in $p[0..N)$.

```
int h = 0;
Point_2 q_now = p_start;
do
{
    q[h] = q_now;
    ++h;

    for (int i = 0; i < N; ++i)
        if (rightturn_2(q_now, q_next, p[i]))
            q_next = p[i];

    q_now = q_next;
    q_next = p_start;
} while (q_now != p_start);
```

$q[0] \quad q[1] \quad \dots \quad q[h-1]$

describes a convex polygon bounding the convex hull of $p[0..N)$.

Successive Local Repair — Implemented

$p[0..N)$ lexicographically sorted sequence of pairwise distinct points, $N \geq 2$.

```
q[0] = p[0];
int k = 0;
// Lower convex hull (left to right):
for (int i = 1; i < N; ++i)
{
    while (k>0 && rightturn_2(q[k-1], q[k], p[i]))
        --k;
    ++k;
    q[k] = p[i];
}

// Upper convex hull (right to left):
for (int i = N-2; i >= 0; --i)
{
    while (rightturn_2(q[k-1], q[k], p[i]))
        --k;
    ++k;
    q[k] = p[i];
}
```

$q[0..h)$, $h = k - 1$, describes a convex polygon with vertices from $p[0..N)$ as they are encountered on the boundary of the convex hull.