Yes

Is flower ready to be cut?

(7)

Manipulator path planning

(10)

Take the image with the depthcam

(12)

Image processing

(13)

Move end-effector toward the flower

(11)

Move the end-effector on the cutting point

(14)

3D localization

(9)

Yes

No

Plant approach

(8)

Are there other flowers to be cut?

(18)

Yes

Yes

Yes

No

No

No

No

Flower found?

(6)

Picking points ended?

(20)

Move on next crop station

(2)

Both plants’ beds seen?

(19)

point the end-effector toward the plant

(3)

Move robot to the docking station

(21)

Harvest completed

(22)

Grip the fruit and cut the stem

(15)

Take the image with the depthcam

(4)

Image processing

(5)

Inizialize System

(1)

Move to the box and release the flower

(16)

Move the arm to the home position

(17)