

# **Team number 12**

## **Re-plantation**

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# Problem Statement

Using Fire Bird V to design a robot for re-plantation of plants at specified distance.

# Requirement Specification & Implementation

- ▶ FB5
- ▶ Image processing to find actual plant(camera) from any random location.
- ▶ pick the plant after finding its location(by a moving arm)
- ▶ Locating the spot for plant re-plantation

# Requirement specification & Implementation

- ▶ Dig a hole at that position(by another moving arm)
- ▶ Put plant at that position.
- ▶ Coming back to pick another plant.

# Issues encountered

- ▶ Installation of opencv in ubuntu and mingw in windows.
- ▶ Image processing in scilab is difficult as it need re-run every time.
- ▶ Random distance generated by IR sensors
- ▶ Slipping of wheels during movement.

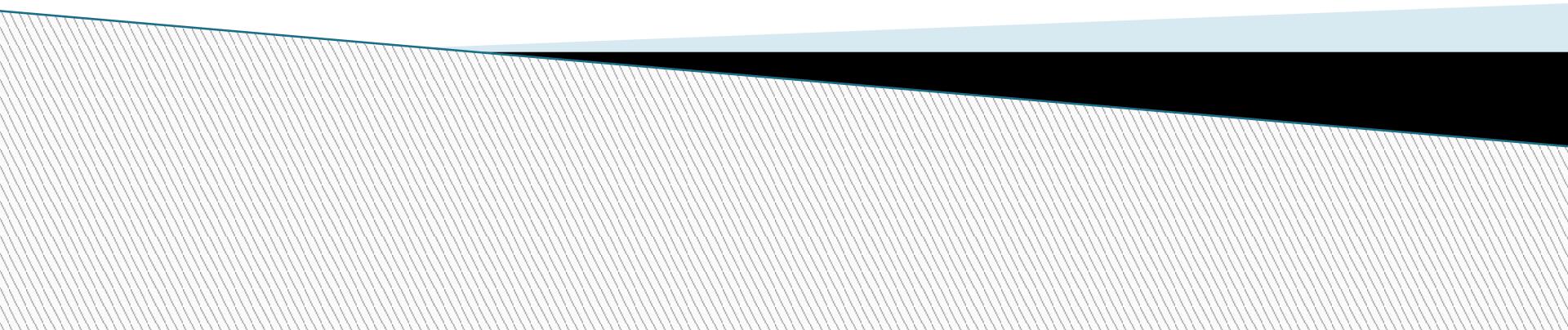
# Insights gained

- ▶ Get to learn image processing and serial communication in scilab.
- ▶ Communication through xbee.
- ▶ Problems occurred due to use of hardware
- ▶ Working of Fire Bird V

# Future work

- ▶ Improving image processing as we are detecting plants on the basis of size.
- ▶ Digging a hole for plant before planting.
- ▶ Using a container for collecting plants to reduce unnecessary robot movement.

# THANK YOU



# Q & A

