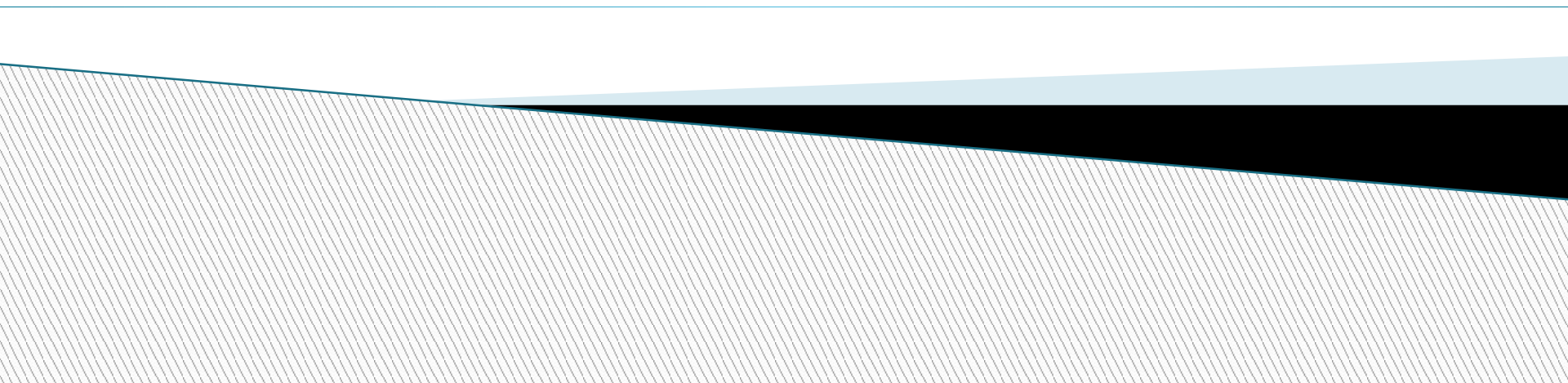


Team number 12

Re-plantation

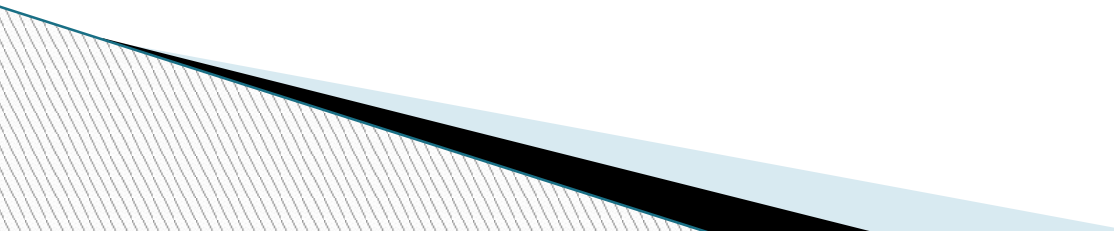
133050077 MANOJ GEDAM (MTECH1)
123050056 DEVENDRA SINGH (MTECH2)
123050054 RAVI KUMAR (MTECH2)



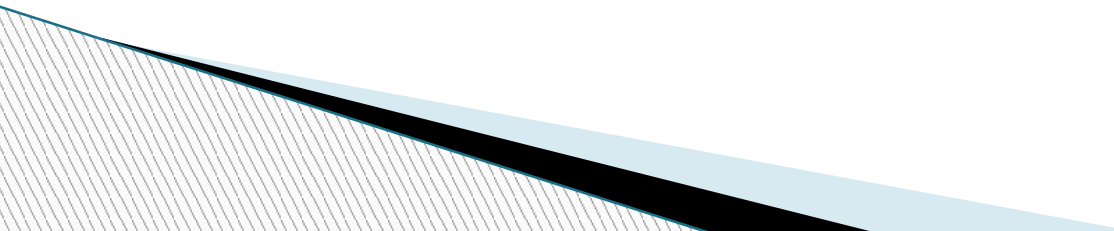
Problem Statement

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

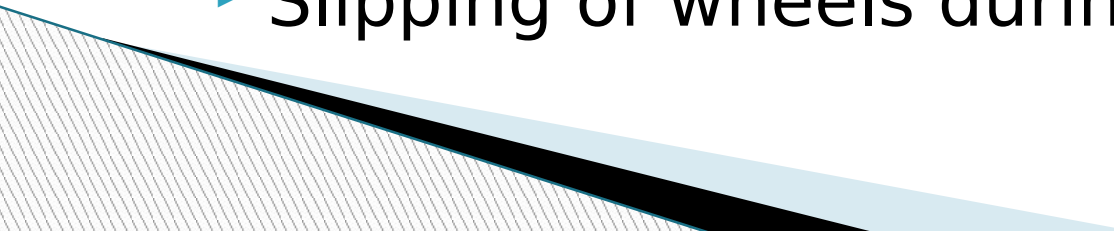
Requirement Specification & Implementaion

- ▶ 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
- 

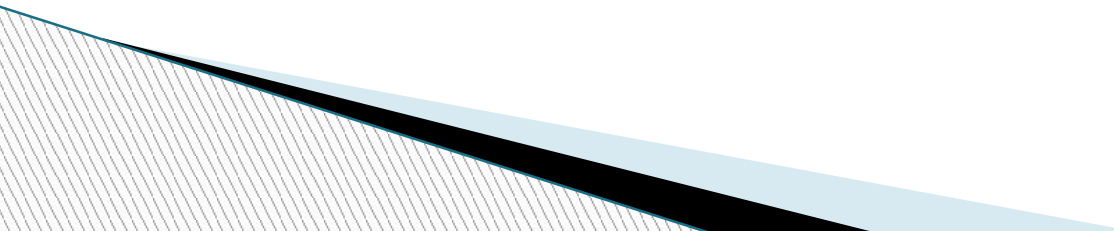
Requirement specification & Implementaion

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

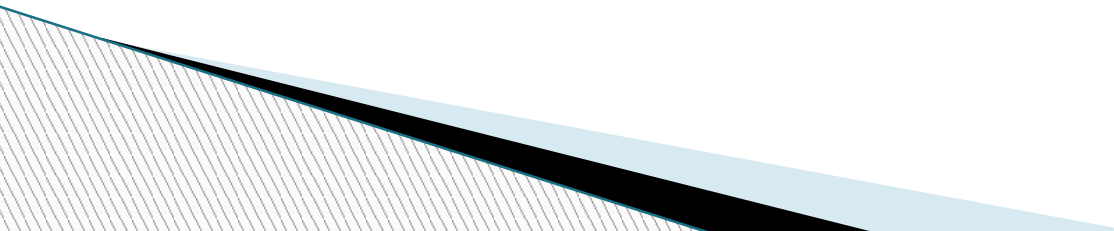
Issues encountered

- ▶ 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.
- 

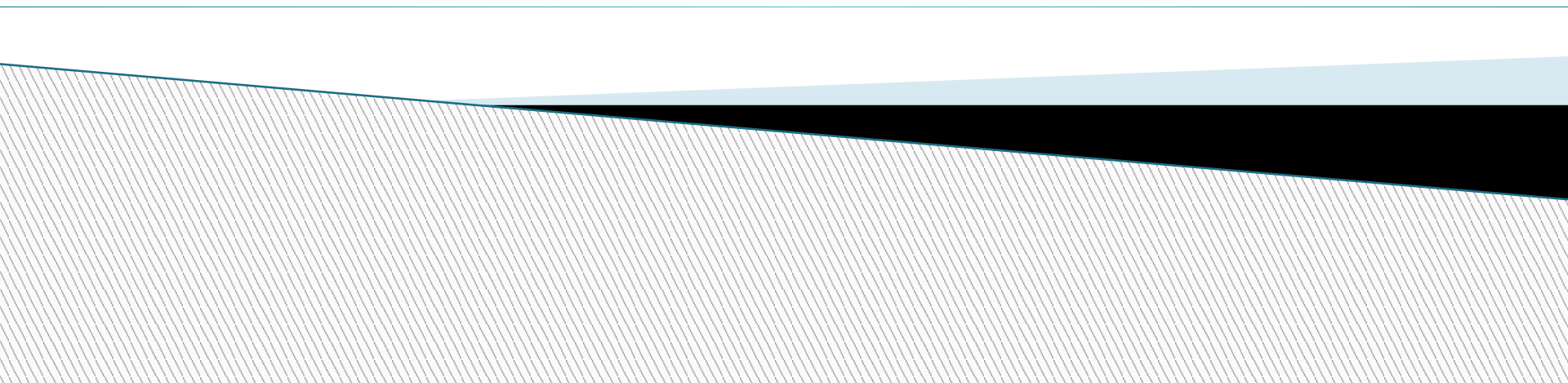
Insights gained

- ▶ 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