# ATRV Robot Projects

Ali Mahmoud and Luke Spicer
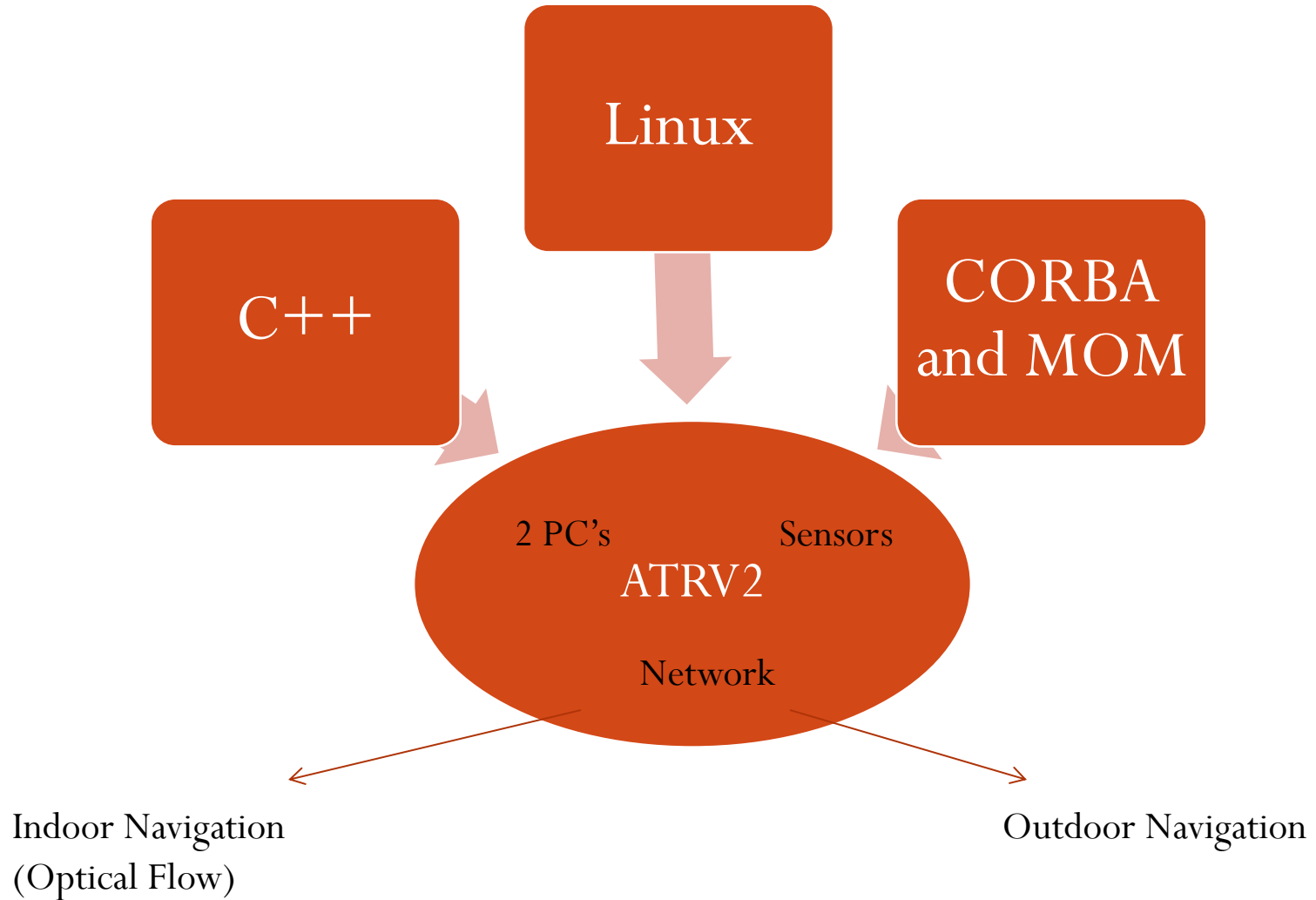
# ATRV-mini Progress to Date

- Full Hardware Upgrade and OS installation

- Player/Stage Installation and Integration with hardware

- Example "control codes" to use proxies to connect to robot hardware

- Blob tracking/following demo to test multi proxy control program

- OpenCV installed and basic face detection tested

- Lab tour only needs script and some navigation improvement to be functional
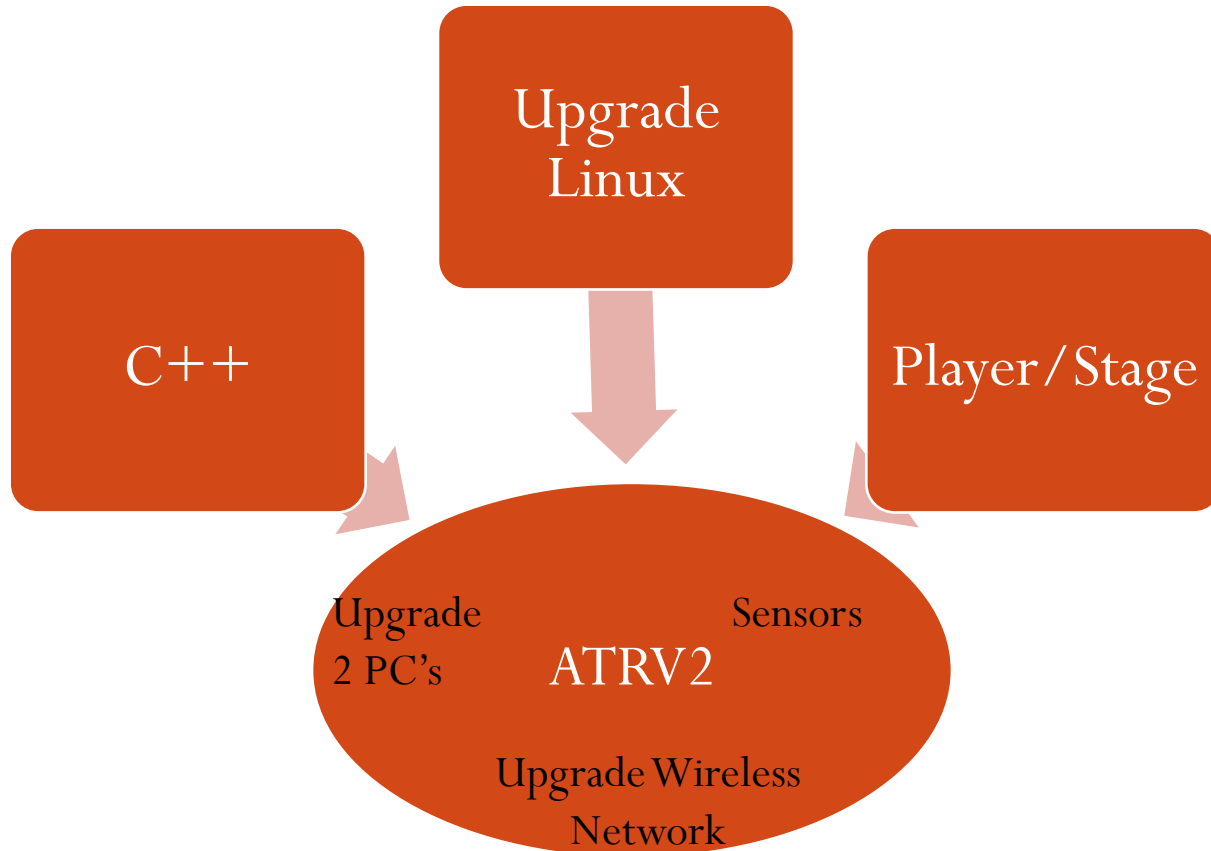
# ATRV2 Progress to Date

- Running the ATRV2 sensor servers

- Dealing with the Graphical User Interface MOM

- Modifying some ATRV2 c++ codes

- Dealing with object oriented programimg (c++ classes)

- Compiling c++ codes in Linux using g++ command and makefiles

- Corridor navigation demo

- Fixing the ATRV2 OS in case of improper shutdown

- Learning some of Linux features

# What we have for ATRV2

Linux

C++

CORBA and MOM

2 PC's    Sensors

ATRV2

Network

Indoor Navigation
(Optical Flow)

Outdoor Navigation

# Upgrade for ATRV2

# Project Plan

## Luke's Tasks/Goals

- Further understanding of c++ code to control ATRVmini
- Finish Lab Tour Demo
- Integrate OpenCV with Player/Stage system
- Assist Ali in upgrades with ATRV2 robot

## Ali's Tasks/Goals

- Algorithm for indoor navigation must be modified for use on the ATRV-mini (has only one camera)
- We need to get 2 new hard drives for the ATRV2 and install on them Linux, Player/Stage, and Open CV.

- Improper shutdown causes a lot of problems
- There is a missing server called absolute orientation