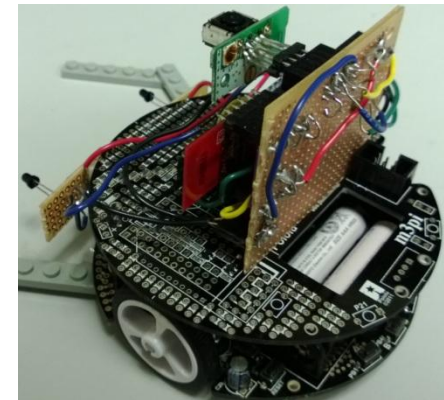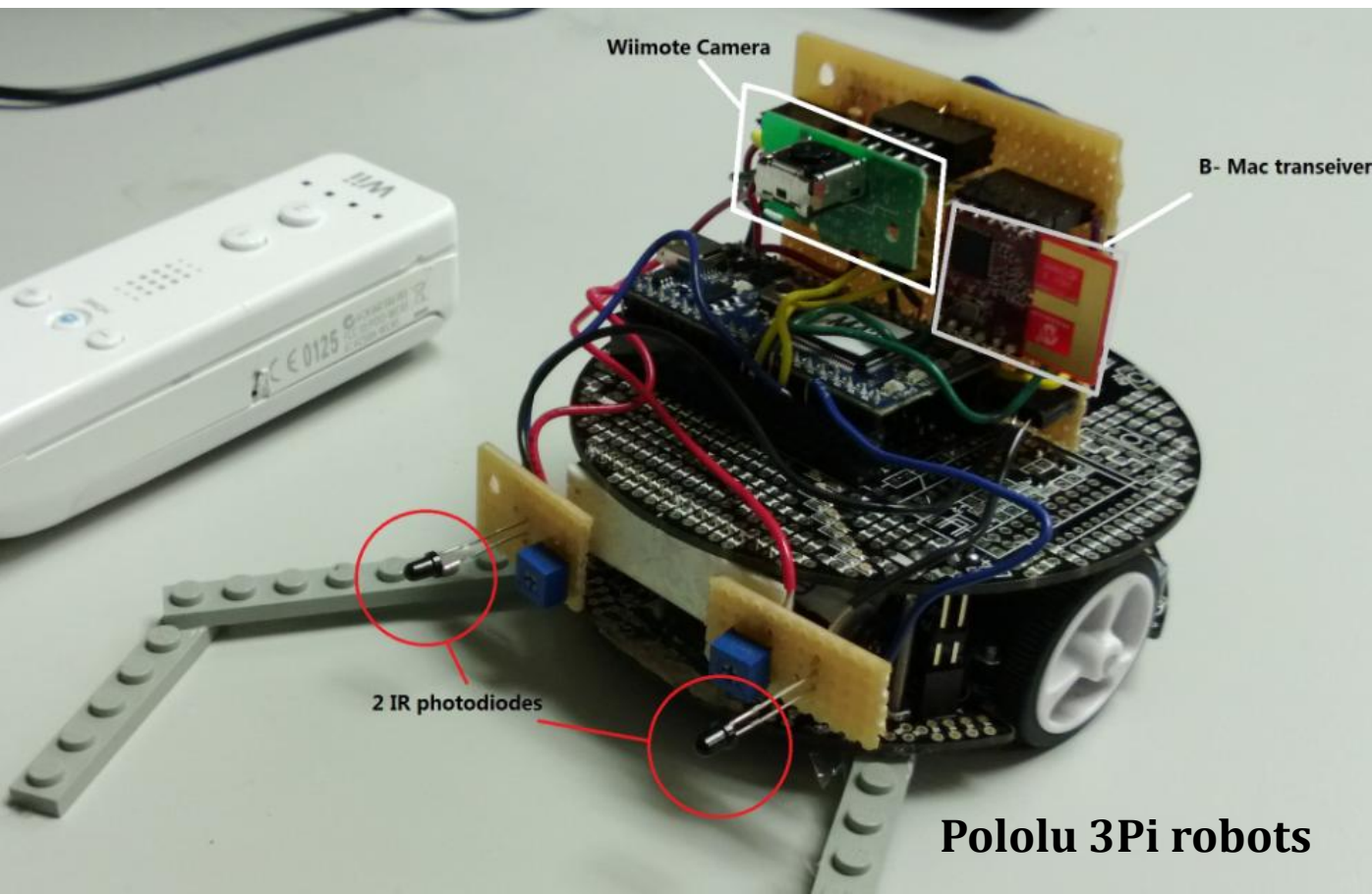# ESE 519 Robot Soccer

Group # 6
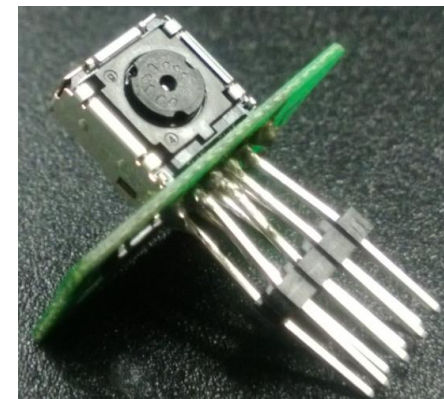
Su Gu, Zhu Cai, Yufei Ma

Robot Player
Attacker or Defender

Wiimote Camera – self localization
B-MAC antenna– wireless communication
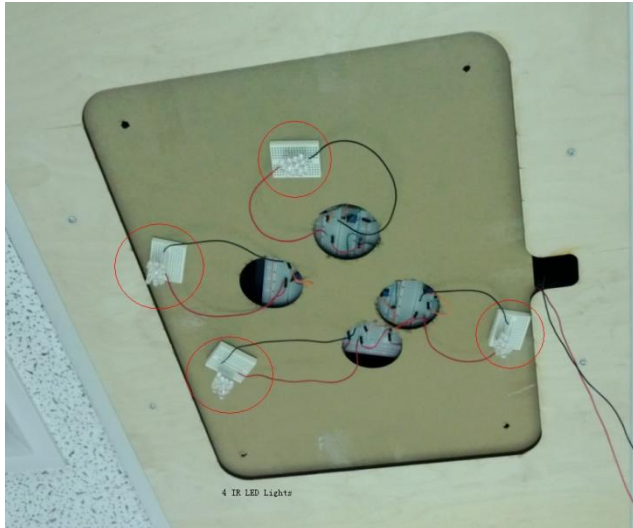IR photodiodes – tracking the ball
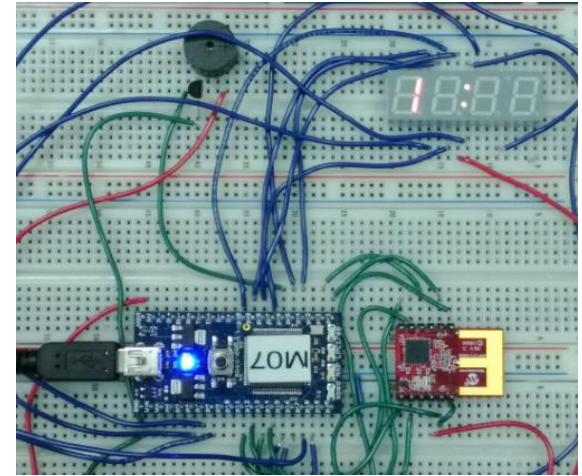**mbed** - microcontroller

Wiimote Camera

Wiimote Camera

B- Mac transeiver

2 IR photodiodes

Pololu 3Pi robots

Game Setting

4 IR LED clusters on ceil as coordinate

Digital Score Board

Ball with IR LEDs emits IR light

Control platform

Start

Draw back
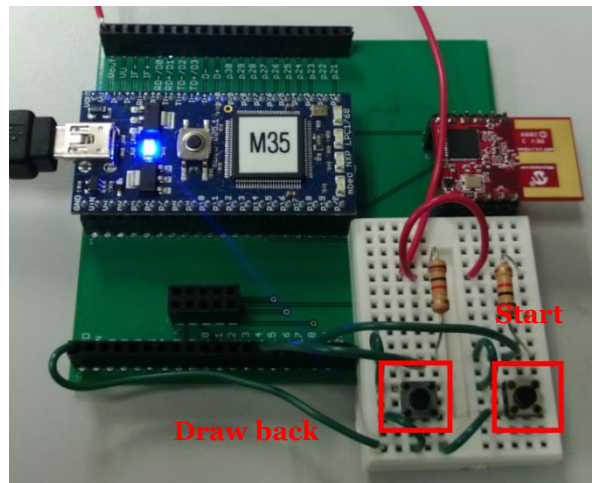
Goal with IR photodiode senses the ball and scores
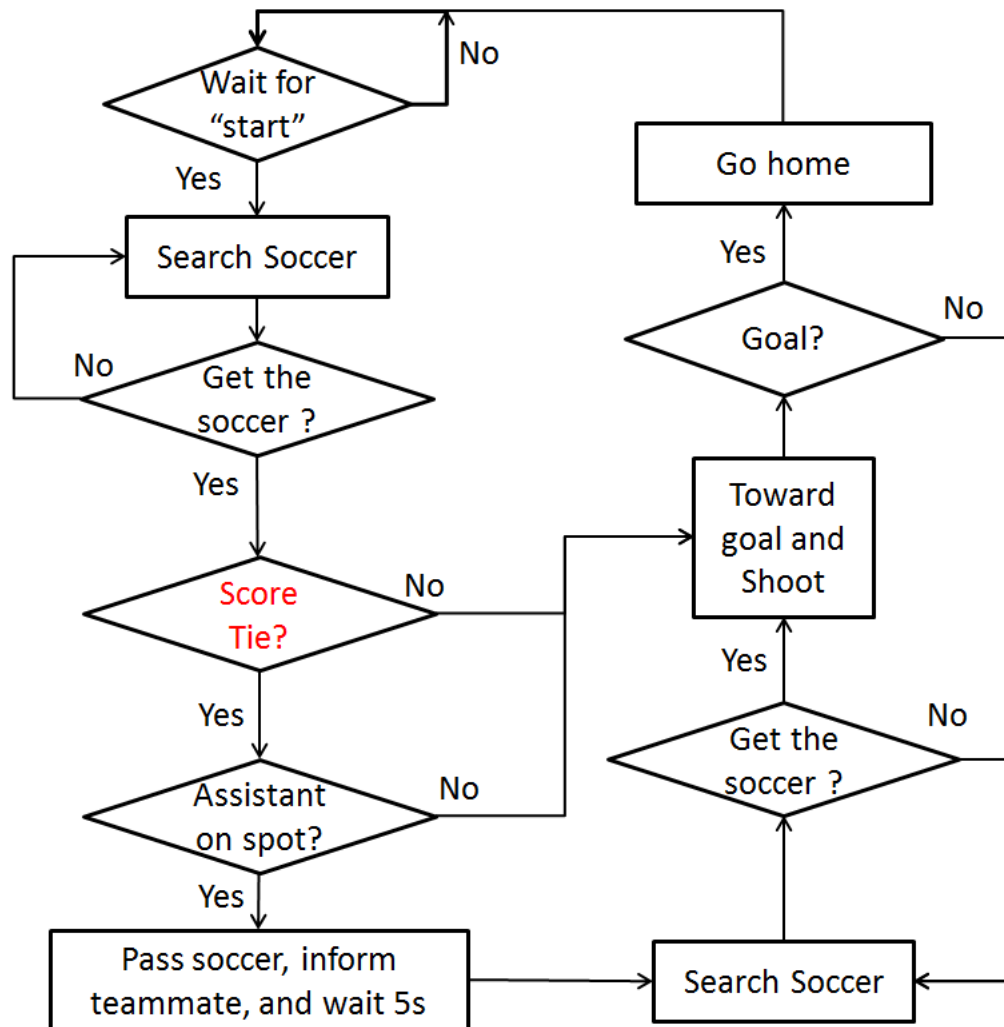

IR photodiode
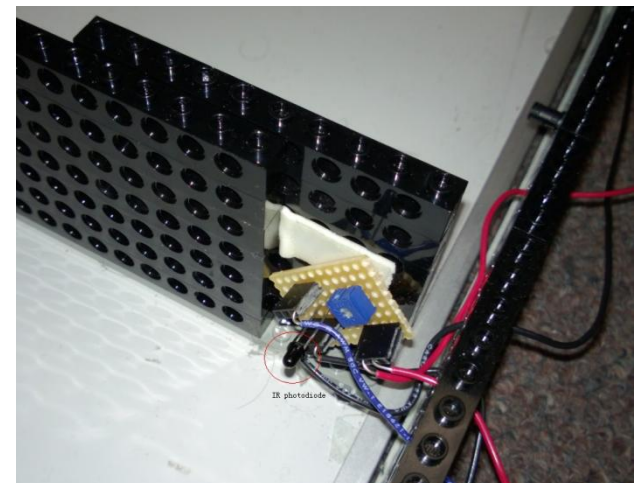
State Machine for player #1 and #3
Tie: passer;   Lead : attacker;   Lag : attacker

Gray team:
player #1 #2
goalkeeper

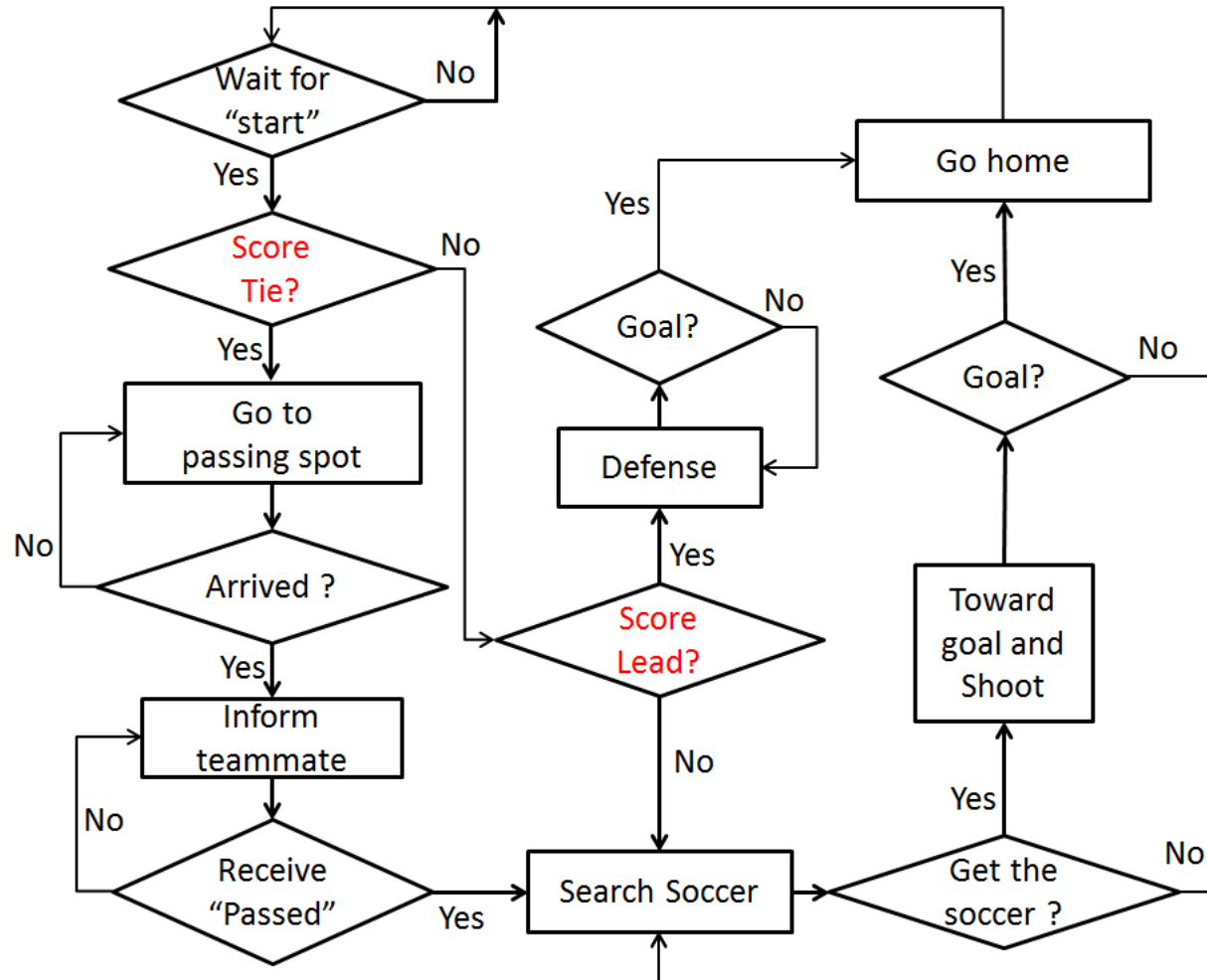**Black team:**
player #3 #4
goalkeeper

State Machine for player #2 and #4
Tie: catcher;   Lead : defender;   Lag : attacker

Gray team:
player #1 #2
goalkeeper

Black team:
player #3 #4
goalkeeper

Game Video