



Application Development for Mobile and Ubiquitous Computing

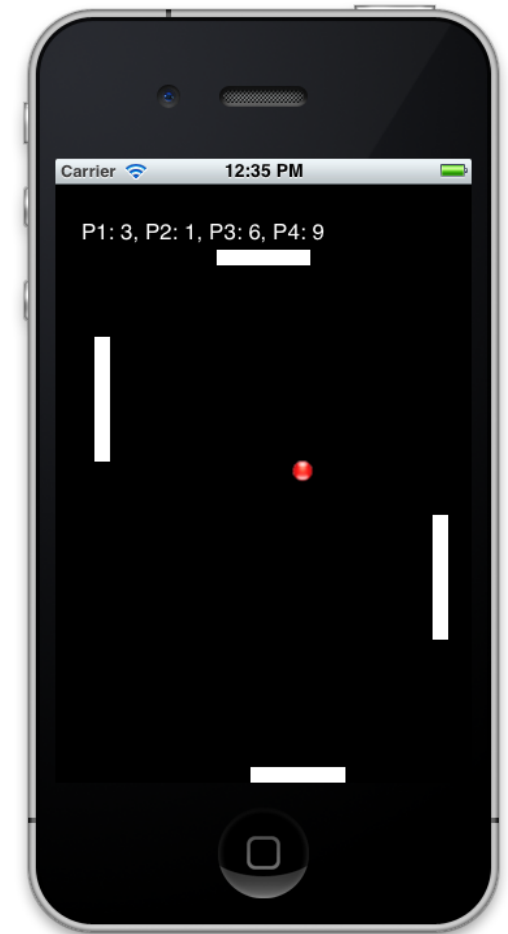
MultiPong

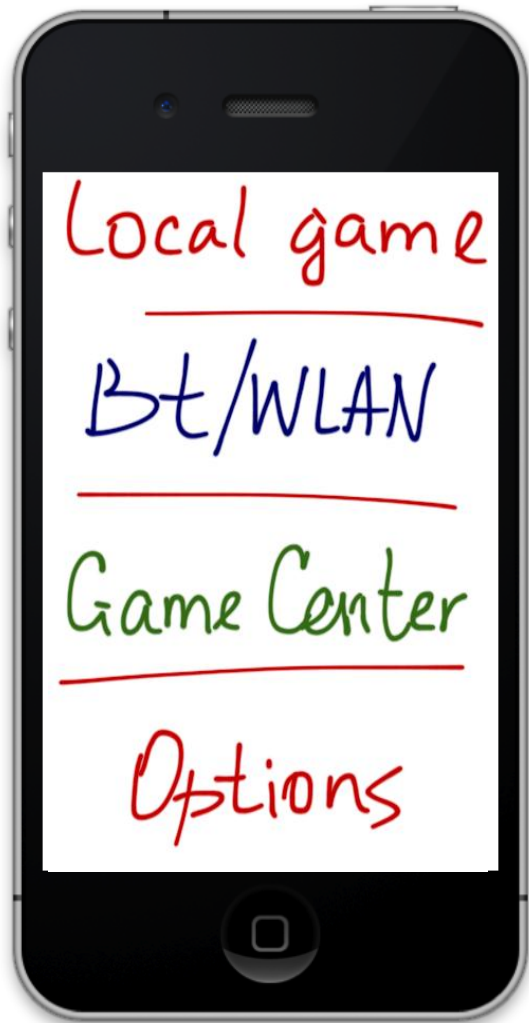
Second Presentation

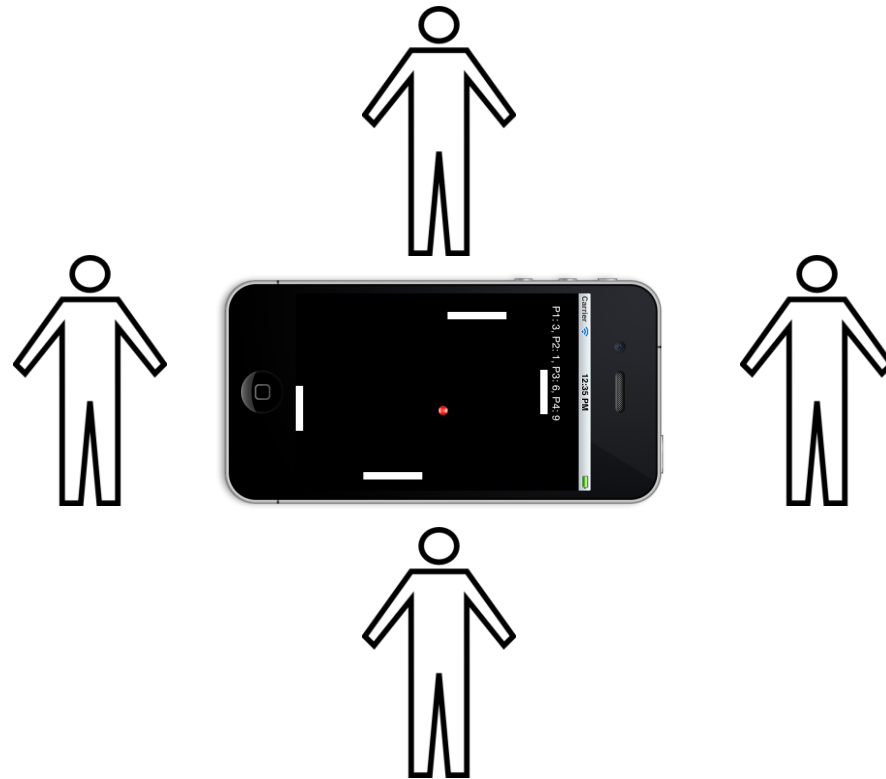
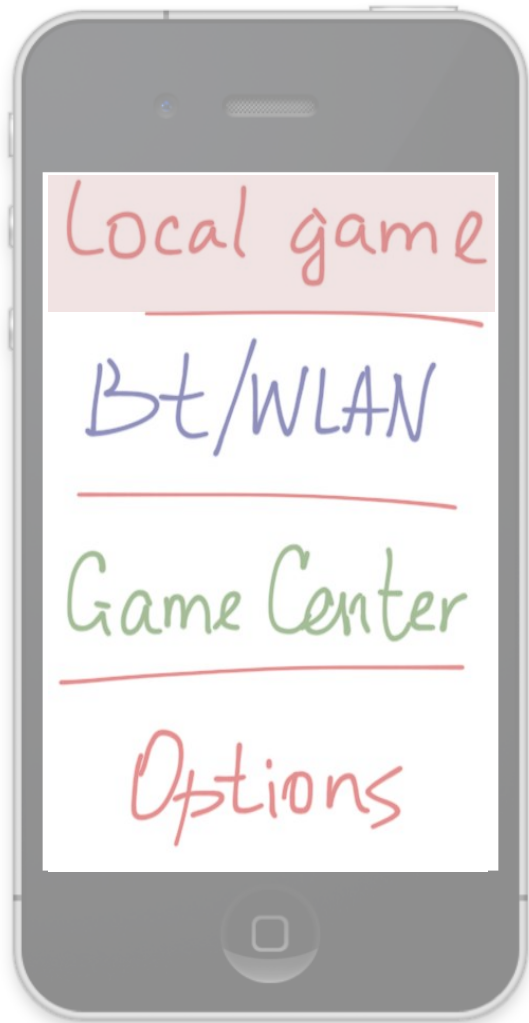
GroupNo. 15

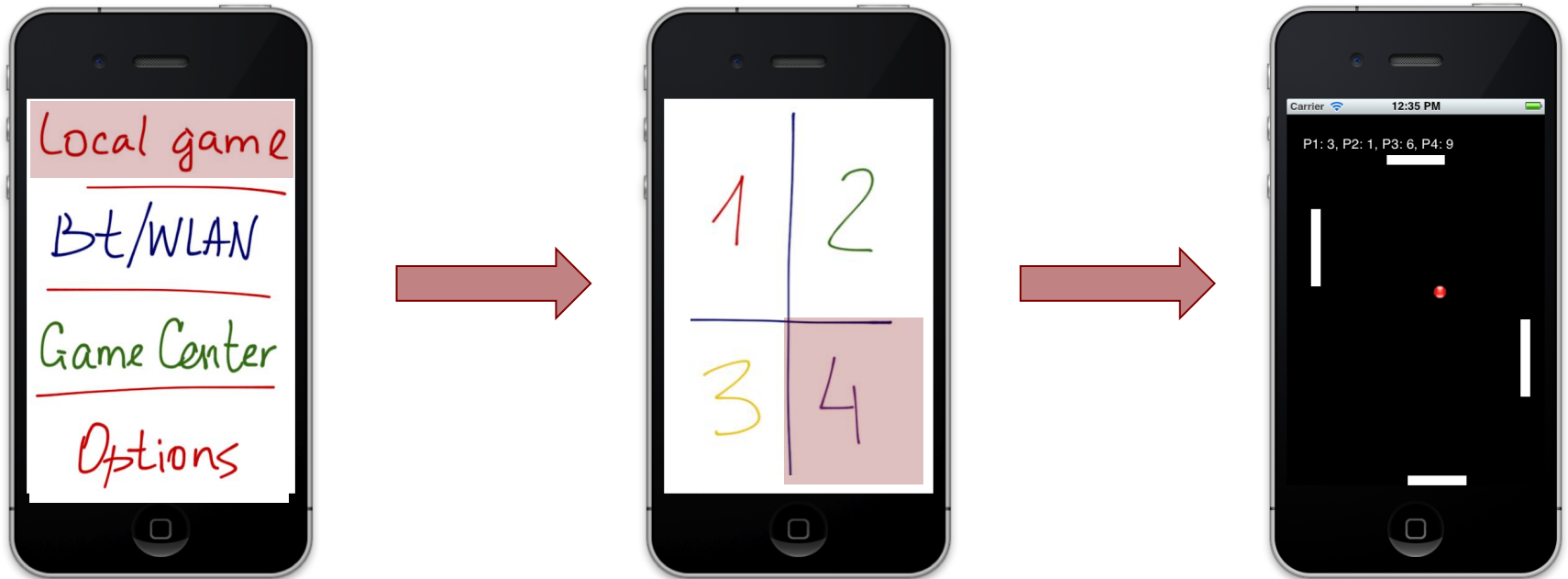
Team: Sergey Chuykov, Philipp Sonnefeld

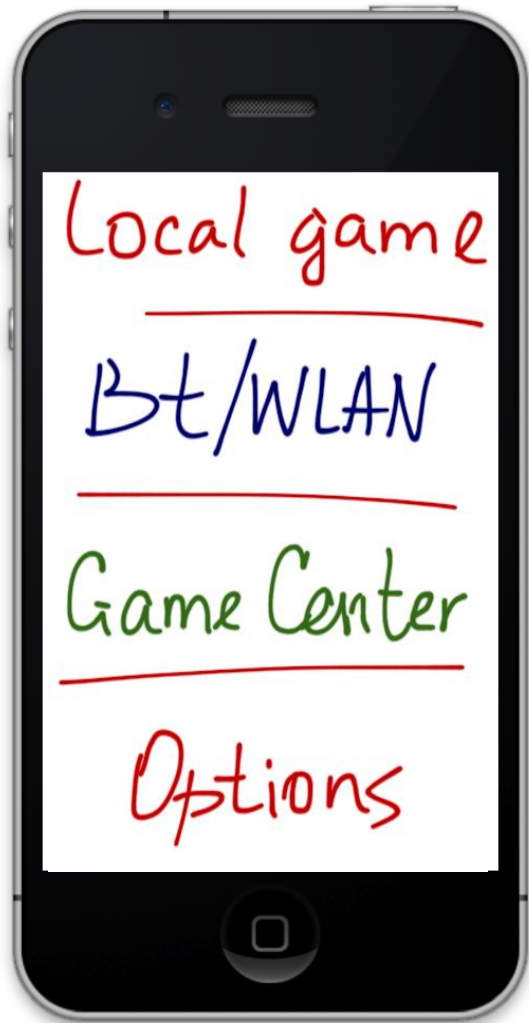
- Current status:
 - local gameplay working
 - local = 1 device, 4 paddles, 1 ball
 - collision detection, paddle movement
 - simple scoring
 - universal app: iPad & iPhone



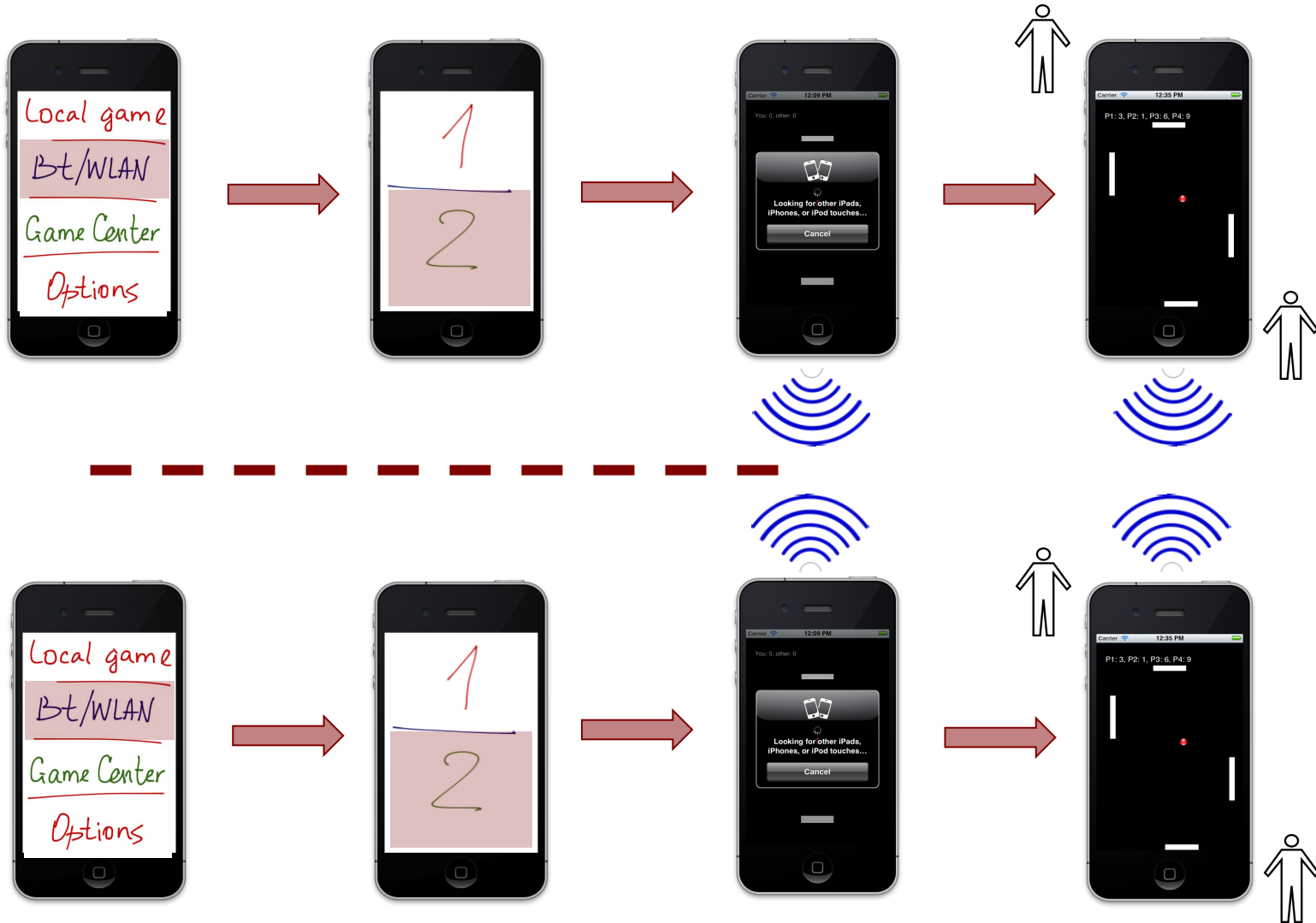


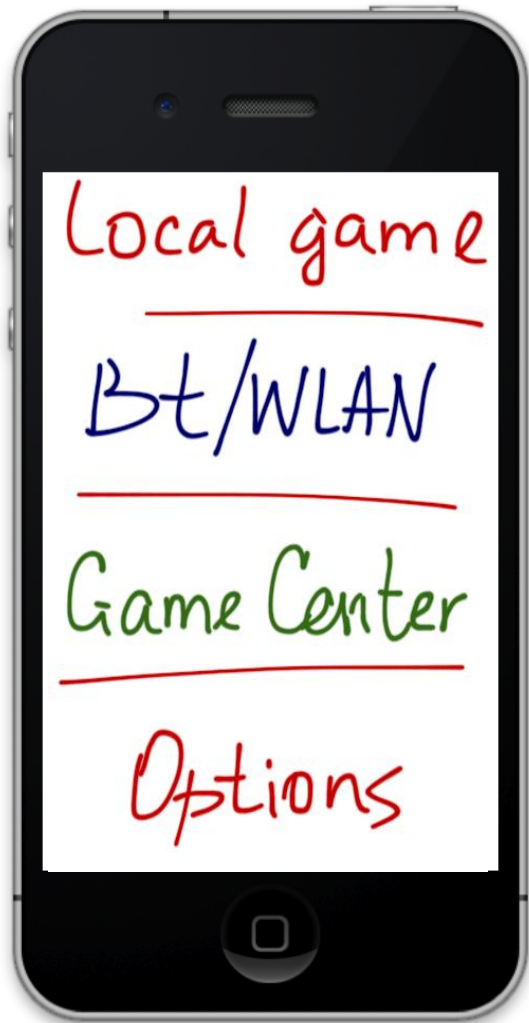


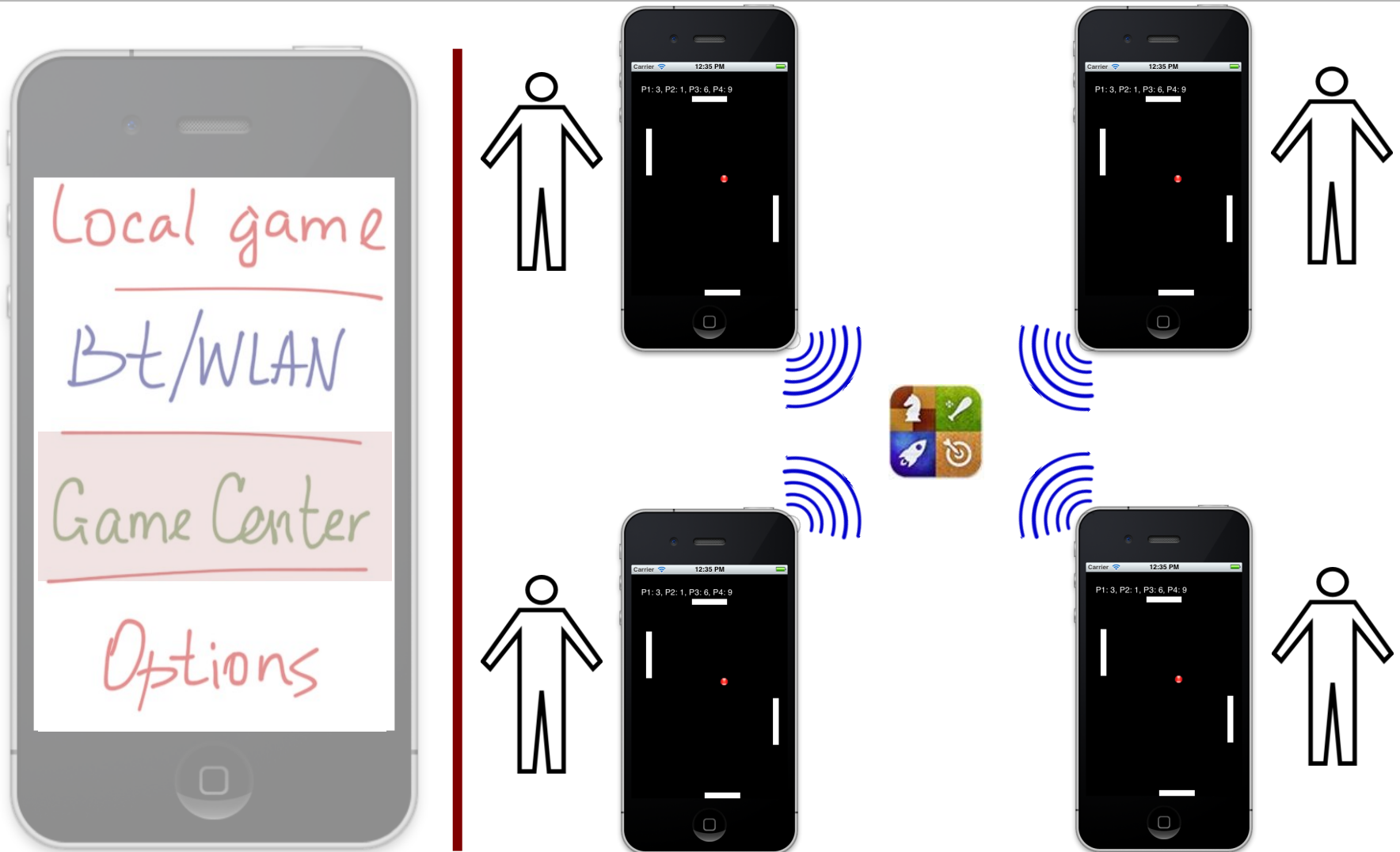


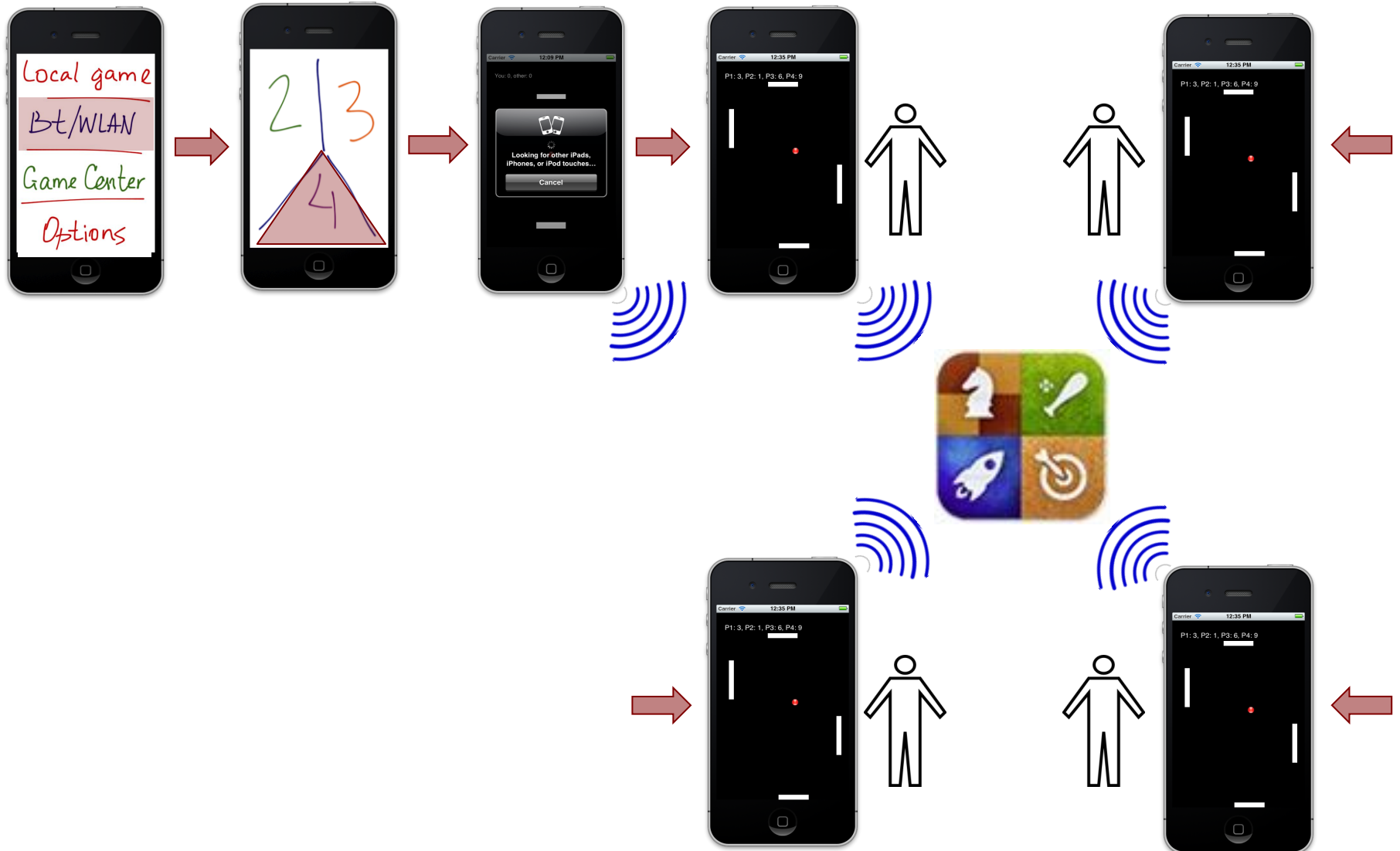


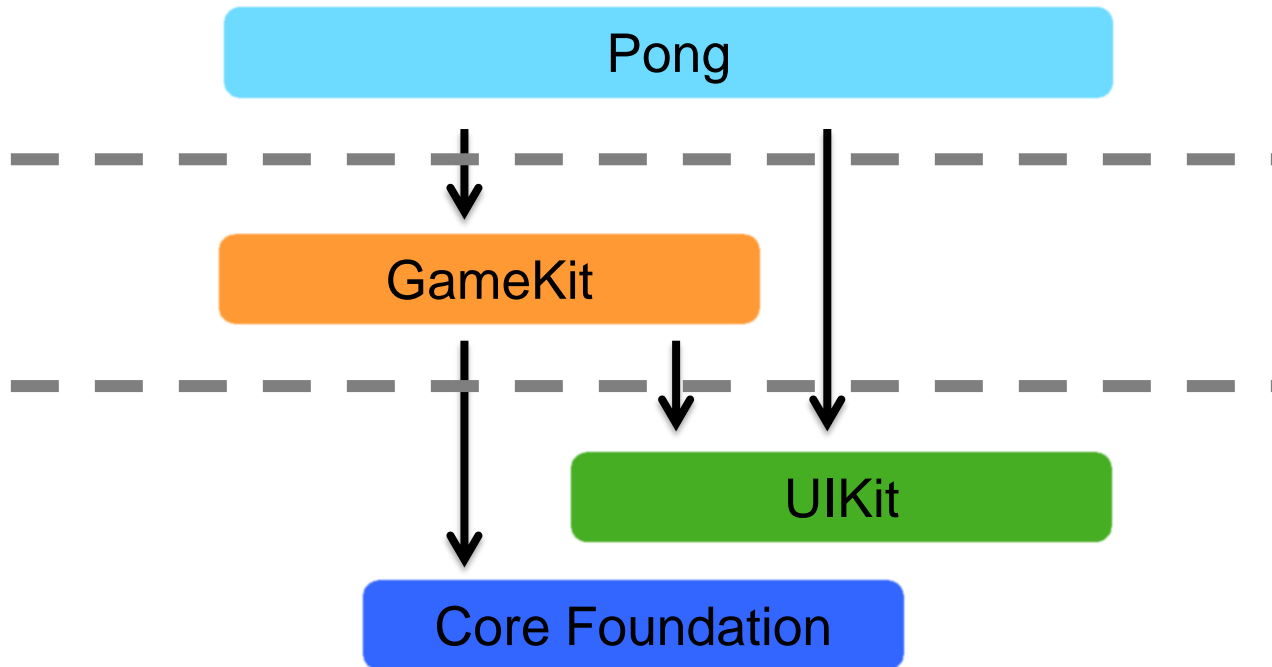


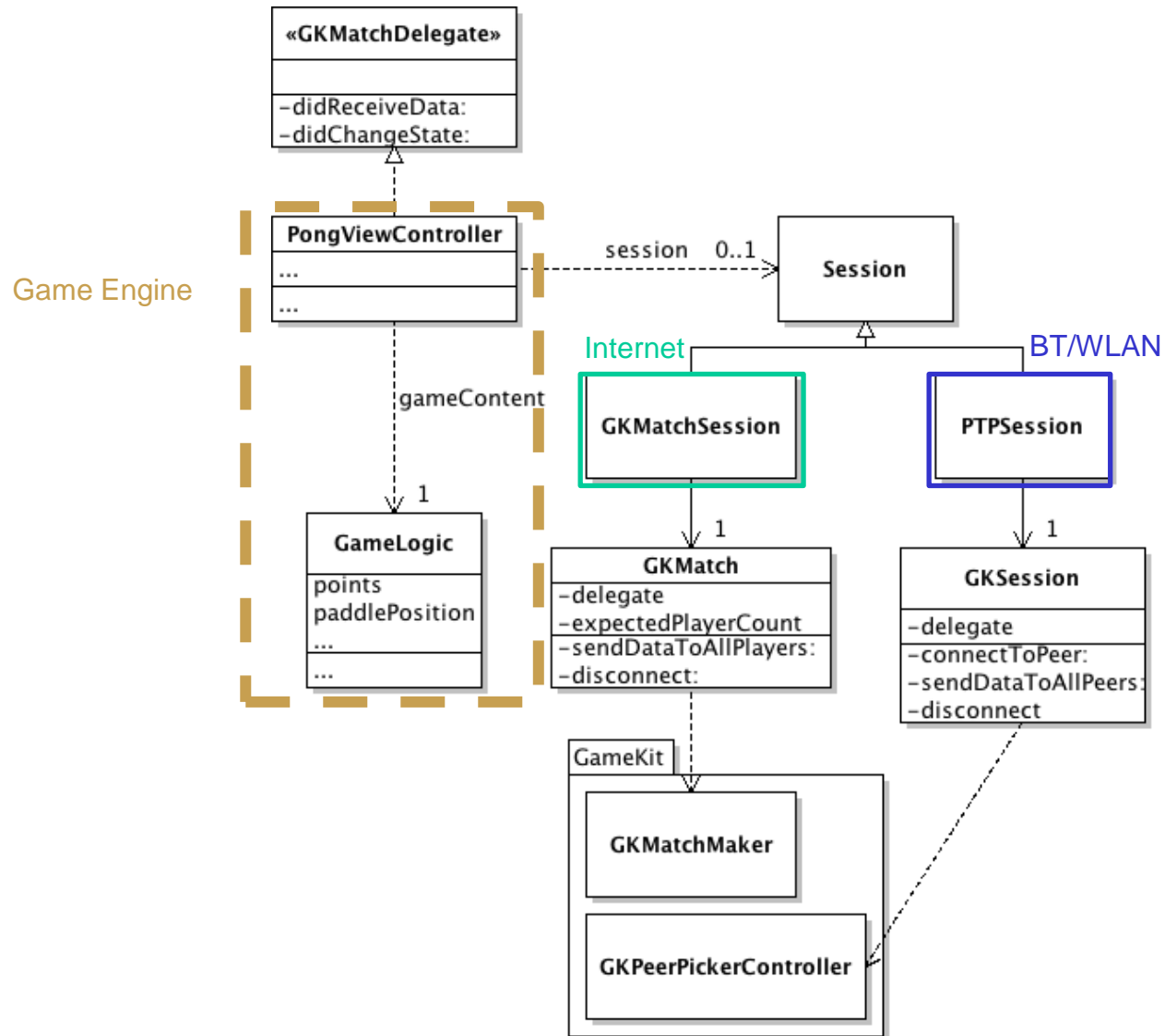












- peer-to-peer connection (1:1)
 - GameKit** *GKPeerPickerController*

```
picker = [[GKPeerPickerController alloc] init];  
picker.delegate = self;  
picker.connectionTypesMask =  
    GKPeerPickerControllerConnectionTypeNearby;  
[picker show];
```

```
-(void)peerPickerController:  
    (GKPeerPickerController *)picker  
    didConnectPeer:(NSString *)peerID  
    toSession:(GKSession *)session {
```

```
-(void)receiveData:(NSData *)data  
    fromPeer:(NSString *)peer  
    inSession:(GKSession *)session  
    context:(void *)context {
```

- peer-to-peer (n:m; $n, m \leq 4$)
 - GameCenter** matchmaking with *GKMatch* (code on next slide)



```
- (IBAction)findProgrammaticMatch: (id) sender
{
    GKMatchRequest *request = [[[GKMatchRequest alloc] init] autorelease];
    request.minPlayers = 2;
    request.maxPlayers = 4;

    [[GKMatchmaker sharedMatchmaker] findMatchForRequest:request
withCompletionHandler:^(GKMatch *match, NSError *error) {
        if (error)
        {
            // Process error...
        }
        else if (match != nil)
        {
            self.myMatch = match; // Use a retaining property to retain the match.
            match.delegate = self;
            if (!self.matchStarted && match.expectedPlayerCount == 0)
            {
                self.matchStarted = YES;
                // begin match here...
            }
        }
    }];
}
```

22.12.2010

- Test / validate current implementation of P2P connection via Bluetooth & WiFi

18.01.2012

- Setup GameCenter Matchmaking (developer acc. required?)

25.01.2012

- Integrate prototypes by creating a main menu
 - ... select number of players at runtime (currently we have four separate prototypes)
- Add some more elements to gameplay - ideas:
 - multiple balls
 - several walls / obstacles
 - possibly powerups