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|  | Mind Games |

Memo

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| To: | Dr. Song |
| From: | Joseph Doherty, Robert Fendricks, Ian Kowalski |
| cc: |  |
| Date: | April 28, 2014 |
| Re: | Week 6 Progress Memo |
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**Summary of Last Meeting**

* Discussed current plans for neural network

**Current Status**

* Working on implementing key features of hardware neural network
* Learning how to use Zync platform

**Work Done**

* Critical register banks implemented for data movement (JD)
* Multiplier and divider completed (IK)

**Current Objectives**

* Learn how to use on board ram with zync
* Update module generation scripts
* Implement Activation Function
* Implement Summation module
* Finish and test single unit
  + We should be able to estimate how long our network will take to perform the feedforward step
* Look into embedded system on the zync (deferred)
* Derive back propagation algorithm (deferred)

**Future Objectives**

* Implement unit controller
* Connect internal components for units
* Explore Programmable Logic and Processor communication

**Final Objectives**

* Units finished
* ARM programmed
* Network connected
* Network tested

**Red Flags**

* We’re behind where we want to be, however we are still in a position where we can get a working prototype