

27th:

1. Storing 2 frames in ZBT
2. Some simulation that shows temporal amplification, test benches.
3. Control logic test bench.
- 4*. Demonstrate temporal amplification with grayscale (brightness, intensity)

Deliverables:

1. Demonstrate amplification with grayscale

(temporal and spatial)

These 2 components will be demonstrated separately. The goal is that the amplification should be clearly visible.

%% combined amplification might not be necessary, but fun to experiment with.

The system need not detect/amplify motion invisible to the naked eye.

Example demo cases:

1. Temporal amplification can be demonstrated by amplifying changes in brightness in light
 2. Spatial amplification can be demonstrated by amplifying the regular oscillation of an object in 2 dimensions.
- Note that only two-dimensional motion will reliably be amplified. A possible test demonstration will use a pendulum or metronome.

The system should run smoothly in terms of timing and provide real-time display. The various parameters should be externally programmable using switches/buttons by the user.

Things we would like to accomplish:

- A reasonable stretch goal would be to implement the system to process color video. Since the theoretical basis is the same, this should work in principle. We will try to design our system so that we can easily incorporate this

Ambitious Goals:

-Implementing frequency selective amplification - the user would be able to tune the frequency of oscillation to be amplified.