Feb. 11, 2010
Steven checks which side of the waveplate-mirror is the mirror and which side is the waveplate using a beamcube and power meter.
After the correct side was confirmed, the waveplate-mirror halves were attached to the stainless steel piece using copper/teflon clamps.
The wire bender, with a scale drawing of the wire bends.
Wire bending took place on the floor. The left wire in the picture is finished.
Mallory is finishing the wire bending process.
Kapton protects the wires inside the stainless steel piece. The guiding channel for the atoms is visible in the center of the piece.
The wires in the stainless steel piece, with the waveplate-mirror on the top.
Dave and Andrew helped Steven and Mallory slide the wires (in the stainless steel piece) into the injection coil package, which is inside the racetrack wire container that is visible. Much care was taken so that the wires would not bend.
The wires sitting on the rail. The center hole shown in the right picture goes all the way through the piece, showing the alignment.
A view from the input side. The waveplate-mirrors are visible a few inches inside of the coil package piece.
A view from the output side of the coil package.
Sliding on kapton tubes to insulate the wires from the clamps.
All of the kapton tubes are now in place.
The first clamp, with the silicon strip between the guide wires for surface adsorption evaporative cooling.
The clamps are held in place with spring-covered screws. Equal pressure is applied to all of the clamps by making sure the screw height is the same on all pieces.
All of the clamps that are ready are attached. A few still need to have the silicon epoxied and cured.
Sliding on the aluminum clamp to keep the guide wires the right distance apart until they exit the coil package.
The clamp is in place. The steel tubes which provide extra support are also visible, as is the kapton that protects the wires from the inside of the steel.
The final view of the day of the injection side.